

# TOWSON STATE COLLEGE BULLETIN



## GRADUATE STUDIES

1970-1971

DECEMBER, 1970

*The provisions of this publication are not to be regarded as an irrevocable contract between the student and Towson State College. The College reserves the right to change any provision or requirement at any time within the student's term of residence, or to add or withdraw course offerings.*

## ACCREDITATION

Towson State College is accredited by the Middle States Association of Colleges and Secondary Schools, the Maryland State Board of Education and the National Council for the Accreditation of Teacher Education. The College is a member of the American Council on Education and is approved by the American Association of University Women.

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Volume IV

Number 4

December, 1970

Towson State College Bulletin is published four times a year by Towson State College, Baltimore, Maryland 21204. Issued February, April, August and December. Second Class Postage paid at Baltimore, Maryland.

# TOWSON STATE COLLEGE



GRADUATE STUDIES 1970-1971  
BALTIMORE, MARYLAND 21204

A black and white photograph of a large, dark, shield-shaped sign mounted on a wooden post. The sign features the text 'TOWSON STATE COLLEGE' in large, white, serif capital letters. Below this text is a decorative horizontal line with a central dot. At the bottom of the sign, the text 'FOUNDED 1866' is written in smaller, white, serif capital letters. The sign is set against a background of dense trees and foliage. The wooden post is light-colored and has a decorative, curved top. The overall image has a high-contrast, grainy quality.

**TOWSON  
STATE  
COLLEGE**

**FOUNDED 1866**

## TABLE OF CONTENTS

ACADEMIC CALENDAR	4
GENERAL INFORMATION	7
REGISTRATION AND FINANCIAL INFORMATION	11
STUDENT PERSONNEL PROGRAM	12
ACADEMIC REGULATIONS	15
GRADUATE PROGRAMS	21
COURSE DESCRIPTIONS	39
BOARD OF TRUSTEES	84
ADMINISTRATION	84
INSTRUCTIONAL FACULTY	86
INDEX	96
MAP OF CAMPUS	Cover III

# ACADEMIC CALENDAR 1970-71

## FALL SEMESTER

1970

- Nov. 6 Fri. Final date to drop a course with partial refund.  
7 Sat. Comprehensive Examination.  
11 Wed. Final date to drop a course without penalty.  
24 Tues. Thanksgiving vacation begins after last class (evening students).  
25 Wed. Thanksgiving vacation begins after 3:00 p.m. (day students).  
30 Mon. Classes resume.
- Dec. 17 Thurs. Christmas vacation begins after last class (evening students).  
18 Fri. Christmas vacation begins after last class (day students).

1971

- Jan. 1 Fri. Final date to submit for Spring Semester "Application for Admission as Graduate Student" to Dean of Graduate Studies.  
4 Mon. Final examinations begin (day students), and final date to receive applications by mail. Applications may be submitted in person on the day of registration.  
6 Wed. Classes resume and final examinations begin (evening students).  
11 Mon. Last day of examinations and semester (day students), and final date to receive fees by mail. Fees may be paid in person on the day of registration.  
14 Thurs. Last day of examinations and semester (evening students).

## SPRING SEMESTER

- Jan. 20- Wed.- Registration\*, Burdick Hall. Day and evening students.  
22 Fri. Evening students should see Registration Time Schedule in schedule of courses booklet.  
23 Sat. Late registration in Burdick Hall. See Registration Time Schedule in schedule of courses booklet. Time 8:30 a.m.—12:00 noon (\$5.00 late fee).

\* No courses may be dropped or added on this day.  
Student advisement must precede this date.

	25	Mon.	Classes begin.
	26-28	Tues.- Thurs.	Schedule changes accepted.
Feb.	1	Mon.	Final date to add a course.
Mar.	20	Sat.	Comprehensive Examination.
	24	Wed.	Final date to drop course (semester duration) with partial refund (day students).
Apr.	8	Thurs.	Spring vacation begins after last class. Final date to drop course with partial refund (evening students).
	19	Mon.	Classes resume.
May	12	Wed.	Last day of classes (day students).
	13	Thurs.	Reading Day.
	14	Fri.	Final examinations begin (day students). Final date for degree candidates to pay Commencement fees.
	15	Sat.	Last day to submit for Summer Sessions "Application for Admission as Graduate Student" to Dean of Graduate Studies.
	17	Mon.	Final examinations begin (evening students).
	20	Thurs.	Last day of examinations and semester (evening students).
	21	Fri.	Last day of examinations and semester (day students).
June	6	Sun.	Commencement.

#### *ADDITIONAL DATES*

June	26	Sat.	Comprehensive Examination.
Aug.	14	Sat.	Final date to submit for Fall Semester "Application for Admission as Graduate Student" to Dean of Graduate Studies.
Nov.	6	Sat.	Comprehensive Examination.

Students should consult the College Bulletin of April 1971, and the Undergraduate Evening College Bulletins of February and August 1971 for academic calendar information beyond that included in this bulletin.



DR. JAMES L. FISHER, *President*

# GENERAL INFORMATION

## *HISTORY OF THE COLLEGE*

Towson State College, the oldest and largest of Maryland's public colleges, traces its history back to 1865 when the General Assembly of Maryland established a state-wide public school system. The first state teacher training institution was the Maryland State Normal School which in 1935 became the State Teachers College at Towson. In 1963 the name Towson State College was adopted.

Formally opened in Baltimore on January 15, 1866, the Normal School was, for many years, the only institution devoted exclusively to the preparation of teachers for the public schools of Maryland.

The School occupied three different locations in the City of Baltimore before moving to its present suburban location in 1915.

In 1946 the arts and sciences program was introduced at Towson. Beginning as a two-year transfer program, it was extended to a four-year, degree-granting program in 1960.

In 1963 the College was authorized, by action of the Legislature, to expand its offerings in the arts and sciences while maintaining a strong program in teacher education and to change its name from State Teachers College at Towson to Towson State College.

In 1966 the College completed 100 years of service to the State, having graduated more than 12,000 students during its first century.

## *DEVELOPMENT OF GRADUATE STUDIES*

Graduate Studies at Towson State College began in June 1958 with the establishment of a Master of Education degree program in Elementary Education. This was initiated after two years of preliminary study and recommendations from teachers and school administrators.

Sixty-seven students were admitted to the degree program in the first session of 1958, and the number of students has increased to the more than 5800 enrolled in November 1970. Since 1958, eleven additional programs leading to the Master of Education degree have been developed and approved and a number of other programs are in various stages of planning and approval. The programs presently offered and the dates of approval by the Board of Trustees are as follows:

*Master of Arts*

General Psychology	1970
Geography	1970
School Psychology	1967 M.Ed., 1970 M.A.

*Master of Education*

Art Education	1965
Early Childhood Education	1968
Elementary Education	1958
Guidance and Counseling	1965
Music Education	1969
Reading	1969
Secondary Education	1965
Urban Teaching	1966

*Master of Science*

Biology	1970
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*THE CAMPUS*

The College is situated on a campus of nearly 300 acres located a mile and one-half beyond the northern border of the city of Baltimore.

Within an eight-mile radius of the campus are all the cultural advantages of the city of Baltimore—the Peabody Conservatory of Music and Library, the Enoch Pratt Free Library, the Walters Art Gallery, the Baltimore Museum of Art, and the many theaters and other cultural centers necessary for a well-rounded college experience.

Campus buildings and facilities give excellent support to the various College programs. The following are a particular interest to graduate students:

1. Stephens Hall, one of the original campus buildings, houses most of the administrative offices as well as some classrooms. This building with its clock tower has become a landmark in the Baltimore area. Offices of the Graduate Division are located in the south wing of Stephens Hall.
2. The Albert S. Cook Library has well-developed holdings in the arts and sciences and teacher education. Towson's long history of teacher education is reflected in the extensive collections of bound volumes, reference works and periodicals in this field as well as substantial holdings in microfilm and microcard. The collections of curriculum materials, textbooks, trade books and audio-visual aids are particularly noteworthy. A large addition to the Library was completed in 1969.
3. Van Bokkelen Hall is a classroom building for the departments of art and mathematics. In addition, it contains recording and listening

rooms for the Speech and Drama Department, piano practice rooms for the Music Department and display areas for the Art Department.

4. Linthicum Hall, completed in 1967, is the largest classroom building on campus. Many faculty offices are also located here. The ground floor houses the College Book Store.
5. Smith Science Hall was first occupied in the fall of 1965. Included in the building are biology, chemistry, physics and science education offices, classrooms, laboratories and special function rooms such as student and faculty work and preparation areas. The Watson-King Planetarium is on the top floor.
6. Lida Lee Tall Learning Resources Center greatly facilitates field studies of children from nursery school through grade six.
7. Burdick Hall, the new gymnasium, and additional athletic fields were completed in the 1967-1968 college year.

A new College Union and Administration Building are under construction. The construction of a Fine Arts Building is expected to begin in the near future.

### ACCREDITATION

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### BOARD OF TRUSTEES

The College is governed by a nine-member Board of Trustees—eight members appointed by the Governor for nine-year terms—and the state superintendent of schools, a permanent member, *ex officio*. This same board also controls the five other state colleges.

Created by the General Assembly of 1963, the Board was a recommendation of the Commission for the Expansion of Public Higher Education in Maryland and replaced the State Board of Education as the College's controlling agency.

### GRADUATE STUDIES COMMITTEE

The Graduate Studies Committee determines policy for all graduate programs. Graduate curriculum matters are also the responsibility of the Committee. The membership is comprised of the Dean of Graduate Studies and the Chief Academic Officer, both of whom shall serve in *ex officio*, non-

voting capacities, and six members of the faculty of the rank of Associate Professor or Full Professor, appointed by the President of the College for overlapping terms of three years. The Chairman and Secretary of the Graduate Studies Committee will be elected from the membership of the Committee. Meetings are held monthly during the academic year and at other times when necessary.

### *GRADUATE STUDIES COORDINATORS*

The Graduate Studies Coordinators is a group comprised of the coordinators of each graduate program and the Associate Director of Graduate Studies. This group administers all graduate work within the policies set by the Graduate Studies Committee.

### *ADVISEMENT*

Graduate student advisement is the responsibility of the Dean and Associate Director of Graduate Studies, the Graduate Studies Coordinators and faculty members serving on the Graduate Staff. Students are encouraged to seek an appointment with one of the advisory staff. All conferences with advisers should be arranged by appointment and well in advance of Registration dates.

### *GRADUATE DIVISION OFFICE HOURS*

The Graduate Division Office is open each weekday (except for scheduled holidays) from 8:30 a.m. to 5:00 p.m. During Registration, the Office is also open in the evening according to the Registration schedule. Students may arrange for appointments with the Graduate Division Staff at other hours.

### *CORRESPONDENCE*

All correspondence concerning graduate study should be addressed to:  
Dean of Graduate Studies  
Towson State College, Baltimore, Maryland 21204

### *LIBRARY PRIVILEGES*

Graduate students are issued College identification cards for borrowing privileges. Books and materials from other libraries in the area may be requested on Inter-Library Loan by graduate students.

### *LIBRARY HOURS*

Mon-Thurs.	8:00 a.m. to 10:00 p.m.
Fri.	8:00 a.m. to 5:00 p.m.
Sat.	9:00 a.m. to 5:00 p.m.
Sun.	2:00 p.m. to 6:00 p.m.

# REGISTRATION AND FINANCIAL INFORMATION

## REGISTRATION

Information concerning registration may be obtained prior to each session at the Evening and Summer School Office. Students who have received a letter of standing have records on file in the Graduate Office and may, therefore, avail themselves of the opportunity to register by mail according to Evening and Summer School Office procedures. Post baccalaureate students who have never applied for admission and are registering for the first time may take 300-level and 400-level courses by filling out the "Application for Admission to Graduate Studies" and have transcripts of all collegiate work sent to the Graduate Office prior to any additional course work being approved. Registration for 500-level and 600-level courses is contingent upon the granting of Graduate Student standing.

## FEES

Tuition and other fees are subject to change without notice by action of the Board of Trustees.

Any post-baccalaureate student enrolled in courses receiving graduate credit is considered to be taking graduate-level work. The semester hours fee, therefore, will be assessed at the graduate rate. Courses not offered for graduate credit taken by the post-baccalaureate student will be assessed at the undergraduate rate for each semester hour.

A listing of the various fees follows:

Tuition: undergraduate, per semester hour .....	\$22.00
graduate, per semester hour .....	\$30.00
Registration Fee: a non-refundable fee assessed every student each term .....	\$ 5.00
General College Fee: a non-refundable fee assessed every student each term .....	\$ 9.50
Change of Course Fee: a non-refundable fee assessed for the addition or subtraction of courses from either the original application or from the registration form .....	\$ 5.00
Transcript Fee: charged after the first copy .....	\$ 1.00
Car Registration Fee: an assessment for each student bringing a car on campus .....	\$ 4.00
Final or Make-up Examination Fee: a charge made if an examination is administered at other than the designated time ....	\$ 5.00
Laboratory Fee: charged for certain courses .....	see course description
Private Music Lessons: .....	\$50.00 plus tuition
Graduation Fee: for Master's Degree, Plan A (with Thesis) .....	\$30.00
Plan B (without Thesis) .....	\$25.00

## *STUDENT PERSONNEL PROGRAM*

Graduate students are welcome to use the facilities and services of the Student Personnel Program. Students are also invited to avail themselves of the many programs presented by the Special Events Committee of the College. The Student Government Association offers for \$5.00 per semester a card admitting graduate students to all of the activities sponsored by the Association including lectures, plays, musical, athletic and social events.

### *COLLEGE CENTRE AND NEW COLLEGE UNION*

The present facility is titled the College Centre and it is located on the ground floor of the west wing of Newell Hall. The College Centre in cooperation with the academic departments provides a program of activities in which the graduate students are encouraged to participate. These activities are publicized in the weekly calendar of activities and circulated to the departments and posted in the College Centre.

The College Centre is open every evening until 11 p.m., and on Friday and Saturday until midnight. Included in the facility is a snack bar service, a colored television, a chapel, recreational facilities and lounges.

The new College Union building is planned for completion during the second semester of 1970-1971. The College Union will include eight bowling alleys, a T.V. lounge, a snack bar, a music listening room, 16 billiard tables, showers and lockers for commuting students and a branch of a local bank. The new facility will also include the College Book Shop, a large cafeteria, a meditation room, a central lounge, an art gallery, and a special dining room. Facilities will be available for all types of conferences and meetings. The Food Service area will include catering for any type of event from coffee and donuts to a gourmet dinner. Organizational offices and meeting space will be included in the College Union. Graduate students are encouraged to use the new facilities.

#### *Book Shop*

The present Book Shop is located on the ground floor of Linthicum Hall. It is open Monday through Thursday from 8:30 a.m. until 7:30 p.m. and

Friday, 8:30 a.m. until 4:30 p.m. Additional hours are arranged at the beginning of each semester and it will be open during selected hours on Saturdays.

The Book Shop presently stocks classroom supplies, phonograph records, hard-back and paper-back books, as well as sundry personal items.

#### *Ticket Box Office*

The College Union also provides a discount ticket service for most of the local dinner theaters and movie theaters and other community activities. The office also handles all tickets necessary for our campus events. The Ticket Box Office is located in the Old Barracks. The manager's extension is 624.

#### *HEALTH CENTER*

The Anita Dowell Health Center is located northeast of Linthicum Hall. It is open week days until 9 p.m. and thereafter for emergencies. First aid is administered and appropriate referrals are made. All accidents on campus should be reported to the Health Center immediately. A mental health service is available for students seeking psychiatric help.

#### *FINANCIAL AID*

##### *PLACEMENT SERVICE*

Appointments may be made during the day and early evening hours with the Dean or Associate Dean of Students to discuss limited financial aid or assistance in placement.

A number of graduate assistantships and fellowships are available to graduate students in a master's degree program. To receive an assistantship or fellowship, a student must be recommended by the appropriate department. Detailed information concerning the assistantships and fellowships may be obtained by writing to the Dean of Graduate Studies.

#### *RESIDENCE, ON AND OFF-CAMPUS*

Provision is made to house a few graduate students on campus. Interested students should communicate with the Director of Residence, Newell Hall. The Housing Office in Newell Hall provides listings of off-campus accommodations. Arrangements for conferences should be made in advance by telephone.

#### *GENERAL COUNSELING*

The Dean of Students, the Associate Dean of Students and the Director of the Counseling Center are available in the early evening hours or during the day, by appointment, for consultation on matters of individual concern.

### *PARKING*

The operation and possession of motor vehicles in the Towson community and the use of campus parking facilities are privileges extended to all college personnel (faculty, staff, and students). These privileges carry with them the obligation to observe all regulations.

The map on the cover of this bulletin designates the parking areas for faculty, staff, and students. Student parking permits are \$4.00 each and may be obtained when other registration fees are paid.

### *MESSAGES*

The switchboard at the entrance of Stephens Hall will be open until 11 p.m. Monday through Friday, and until 6 p.m. on Saturdays and Sundays. Emergency messages **ONLY** may be received and relayed to staff and class members provided the College operator is given the name of the class in which the individual is to be located. Emergency messages do not include reported absences or reasons for absence.



# *ACADEMIC REGULATIONS GOVERNING GRADUATE AND POST-BACCALAUREATE STUDY*

## *GENERAL ADMISSIONS POLICY*

Admission to the Graduate Division at Towson State College is granted to all applicants whose academic and personal qualifications give promise of success in graduate study. Students will be given a classification within the Graduate Division appropriate to their qualifications. The Board of Trustees of the State Colleges has established the requirement that admission to the State Colleges shall be determined without regard to race, color, religion, or sex.

## *ADMISSION TO COURSES FOR GRADUATE CREDIT\**

An applicant for admission to courses for graduate credit (classification: Graduate Student) must meet admission requirements in one of two ways: 1) By holding a Master's or Doctor's degree from a regionally accredited college or university, 2) By holding a Bachelor's degree from a regionally accredited college or university and a grade average of 3.00 ("B"). Several areas of the applicant's undergraduate academic record will be examined, and the grade requirement can be satisfied by a "B" average in at least one of them. They are as follows: a) The complete record of four years' work, b) The work of the junior and senior years only, c) The courses relevant to the graduate program he will undertake. These courses are ordinarily those making up the undergraduate major and minor if the student plans to continue his studies in these same fields. The quality of graduate work taken beyond the Bachelor's degree, either as post-baccalaureate (non-graduate credit) courses or graduate credit courses, will be evaluated as part of the undergraduate record. Recommendations from persons who can appraise the student's academic qualifications may be required.

An "Application for Admission as Graduate Student" must be filed in advance of the first enrollment at this college. The application and official Copies of transcripts of all collegiate work must be filed with the Dean of Graduate Studies no later than August 15 for the Fall Semester, January 1 for the Spring Semester, or May 15 for the Summer Session to be considered for

\* The regulations contained in this Bulletin pertain only to those students who began their graduate studies at Towson State College after June 1, 1967.

admission. Those who are admitted as Graduate Students may register for courses numbered 100-699 but will receive graduate credit only in graduate level courses numbered 300-699 completed with grades of "C" or better. Service Courses\* and several 300-level and 400-level undergraduate prerequisite courses are not given graduate credit. In order to maintain the classification of Graduate Student a good academic record must be achieved even if the student is not in a degree program.

#### *CANDIDATES FOR DEGREES AT OTHER INSTITUTIONS*

A student who is a candidate for an advanced degree at another college or university may enroll as a Graduate Student at this college for occasional work. He must present, at least two weeks before registration, a letter from the Graduate Dean of his parent institution indicating that he is in good standing and that credit earned here is acceptable towards his degree.

#### *ADMISSION TO COURSES FOR POST-BACCALAUREATE WORK (NON-DEGREE PROGRAMS)*

Students who do not meet the standards required for classification as Graduate Student are permitted to register with the classification of Non-Graduate Student and pursue non-degree programs. Non-Graduate Students may take graduate level courses at the 300-level and 400-level and earn graduate credit towards the Advanced Professional Certificate.

Non-Graduate Students pursuing non-degree programs at the post-baccalaureate level, however, are required to file an "Application for Admission as Graduate Student" and a copy of all transcripts of all collegiate work in advance with the Dean of Graduate Studies.

Students who believe they can meet the admission requirements for Graduate Student status but who fail to file the required application in advance must register as Non-Graduate for the term. However, they will be considered for admission to Graduate Student status if their application and transcripts are received by the college before the end of the first quarter of the term. If they are admitted to Graduate Student status they will then be permitted to receive graduate credit for satisfactory completion of any 300-level and 400-level graduate courses (except Service Courses\* and several undergraduate prerequisite or specifically senior courses) in which they may be enrolled.

#### *GRADUATE WORK BY SENIORS IN THIS COLLEGE*

Seniors in their last semester of work at this college may take 300-level and 400-level courses for graduate credit and 500-level and 600-level courses if they

\* e.g. safety and driver education courses.

meet the following requirements: 1) The graduate courses must be in excess of the 128 hours required for the Bachelor's degree, 2) An application to the Dean of Graduate Studies for Graduate Student classification (which requires a 3.00 average), submitted in advance for specific graduate courses (by August 15 for the Fall Semester, January 1 for the Spring Semester, and May 15 for the Summer Session) must be approved.

### *THE QUALIFYING PROGRAM*

A Qualifying Program has been designed to test the readiness for graduate work of those students whose academic achievement falls short of the standards required for Graduate Student status but whose records show promise on several other grounds. Those who pass the Qualifying Program are admitted to the status of Graduate Student.

Two factors will be considered in determining whether an applicant should be admitted to the Qualifying Program: 1) His academic average in all collegiate work. It must be at least 2.30 in one or more of the areas of the student's record listed above in "ADMISSION TO COURSES FOR GRADUATE CREDIT", 2) The quantity and quality of teaching or counseling experience in the field in which he plans to major as a Graduate Student. In addition, recommendations from persons who can appraise the student's academic qualifications and professional experience may be required.

The Qualifying Program consists of 1) A minimum of six hours and a maximum of fifteen hours chosen from a list of approved 300- and 400-level courses. The courses must be completed with a 3.00 average. In the Master of Education Qualifying Program at least one course must be in Education and one outside Education. In the Master of Arts and Master of Science Qualifying Programs no course in Education is required. 2) The Graduate Record Examination. Acceptable scores on the Graduate Record Examination must be achieved in the Aptitude Test and in the appropriate Advanced Test if required by the particular degree program. An adviser will be assigned to the student to assist him and to help evaluate his work. Application for admission to this program is made to the Dean of Graduate Studies.

Students in the Qualifying Program are enrolled as Non-Graduate Students. Their course work will not count towards any advanced degree but may be given graduate credit towards the Advanced Professional Certificate. During this period students may be asked to complete certain undergraduate requirements for the degree program in which they may be interested.

Non-Graduate Students must be enrolled in the Qualifying Program if they expect their work in 300- and 400-level courses and performance on the Graduate Record Examination to be considered for admission to Graduate Student status.

## ADVANCEMENT TO DEGREE CANDIDACY

Students admitted as Graduate Students are not candidates for a degree until all the requirements listed below under "Advancement to Candidacy for the Master's Degree" have been met. However, all those who intend to apply at the appropriate time for advancement to degree candidacy should file a Program of Study with the Dean of Graduate Studies during their first term of work at this college. This Program, listing all courses to be taken to meet degree requirements, must be approved by a graduate adviser. It also includes any undergraduate requirements the student may not have met. Students should consult the Course Requirements of the program in which they are interested for undergraduate requirements of the major areas of graduate work (Education, Psychology or Art). However, all programs require or recommend that work be taken in departments outside one of these major areas. Since some departments may require a specific undergraduate background for graduate study in their areas (i.e., an undergraduate major or minor), students are urged to consult the Graduate Advisers of the appropriate departments for information about their policies. Such requirements are normally met by taking the necessary courses, but in special circumstances may be fulfilled by a reading program or by examination.

## REQUIREMENTS FOR THE MASTER'S DEGREE

### 1. Advancement to Candidacy for the Master's Degree

An application for Advancement to Candidacy for the Master's degree may be made by Graduate Students when nine to fifteen hours of graduate courses have been completed at this college. Six credit hours of this work must have been taken in 500- and 600-level courses. Application is made to the Dean of Graduate Studies.

Evaluation of the application is based upon the completion of the following requirements:

- a) The filing of a Program of Study with the Dean of Graduate Studies, if not done earlier. The Program, to be completed in consultation with an adviser, must be drawn up on forms provided by the appropriate graduate coordinator. It may be revised at any time with the adviser's approval.
- b) A 3.00 average in all graduate work at this college.
- c) Acceptable scores on the Graduate Record Examination. This need not be retaken by those who passed the Qualifying Program.

Advancement to Candidacy in no case assures the student of a degree, but merely signifies that he is considered by his instructors sufficiently prepared and able to pursue such graduate study and

research as are demanded by the requirements of the degree sought. Recommendations from persons who can appraise the candidate's professional experience may be required.

2. All requirements, including the comprehensive examination, and the thesis if applicable, must be completed by August of the seventh year of graduate study. This period of study is assumed to begin at the time the student is admitted to Graduate Student status.
3. Eighteen or more of the total required course credits for any degree program must be earned in 500-level courses.
4. In order to remain in good standing, candidates for the Master's degree must maintain a 3.00 average after being advanced to degree candidacy. If the cumulative average falls below 3.00, the student will be placed on probation. If after completing nine more hours of work his cumulative average remains below 3.00, he will be dropped from candidacy; otherwise he will be restored to good standing. A student attempting to restore his average to a 3.00 in a program with a thesis must accomplish this by the completion of 36 hours in a thesis program and by 39 hours in a program without a thesis. A student on probation will not be permitted to take comprehensive examinations leading to any degree. Required courses in which the candidate earns a grade of "D" must be repeated, since the grade does not confer graduate credit.
5. The thesis and seminar requirements of the programs which demand them represent a major part of the student's advanced study. The thesis\* must demonstrate the student's ability to do independent research and to write effectively as evaluated by a thesis committee appointed by the Dean of Graduate Studies. The seminar paper is a more modest undertaking, but must exhibit similar qualities of research and writing as evaluated by the professor teaching the seminar.
6. Each candidate for the Master's degree must take a final comprehensive examination not earlier than the term during which he will complete his course work. This examination is given three times a year, in March, June, and November. The examination may be repeated only once. It is the responsibility of the student to inform the Gradu-

\* The student who has elected or is required to write a thesis in partial fulfillment of the requirements for the degree must enroll in the appropriate Thesis course (3 hrs.) at some time during the active preparation of the thesis. The grades to be granted in the Thesis course shall be "S" for Satisfactory and "U" for Unsatisfactory. "Incomplete" shall be given only in accordance with the Academic Regulations stated in the Towson State College Bulletin.

ate Office at least one month prior to the examination of readiness to take the examination. Students presenting a thesis in partial fulfillment of their degree requirements will be required to take an oral examination on the thesis.

#### *CREDIT TRANSFERRED FROM OTHER COLLEGES*

A maximum of six hours of graduate credit may be transferred from other regionally accredited colleges or universities and counted towards the Master's degree. A request for transfer credit for courses taken before enrollment as a Graduate Student at this college should be submitted at the time the student files a Program of Study. If he wishes to take work elsewhere after filing this Program, he must apply in writing to the Dean of Graduate Studies for permission. Normally, approval will be given only for courses which are not offered by this college during the period of the student's attendance. Only courses in which grades of "A" or "B" have been earned are transferable. The candidate is subject to final examination on all work offered for the degree.

All course work to be transferred, like credit earned at this college, must have been taken within the seven-year period of study in order to be counted towards the degree.



## GRADUATE PROGRAMS

### PURPOSES

The Master of Arts degrees in Geography, General Psychology, and School Psychology and the Master of Science degree in Biology are intended to develop further specific knowledge in the respective fields. It is the intent of these programs to enable students to meet their needs through the flexibility within each program.

The programs leading to the Master of Education degree have been developed primarily to help school teachers and guidance counselors increase their competency in the following general areas:

- Art Education
- Early Childhood Education
- Elementary Education
- Guidance and Counseling
- Music Education
- Reading
- Secondary Education
- Urban Teaching

### PROGRAMS

#### MASTER OF ARTS IN GEOGRAPHY

The Master of Arts in Geography is available for those who are primarily interested in an advanced degree. The program is designed to provide qualified students with a broad mastery of the field through a balanced curriculum of systematic studies, regional studies, and research experiences leading to a thesis. Emphasis is placed on field work, individual study and research, and on the application of approaches and techniques used in Geography in the study of problems concerned with physical and cultural phenomena.

Students who complete the Master of Arts in Geography should develop a better understanding of the nature of geography and its relation to other disciplines. They will be adequately prepared to undertake more advanced degrees in geography or to qualify for a number of career areas such as, teaching in the community college, four-year college or university levels, posi-

tions with various federal, state, and county government agencies, and in industry.

*Requirements:*

1. Undergraduate Requirements
  - a. At least a minor in Geography or the equivalent.
  - b. At least a "B" grade average in the Geography courses presented for admission.
  - c. Acceptable achievement on the Graduate Record Examination in Geography.
2. Requirements for the degree:
  - a. A Program of Study will be prepared by each student in consultation with his advisor. The Program of Study will be presented to a Graduate Committee of the Geography Department. Candidates may be required to justify their program before the Committee.
  - b. Presentation of evidence of at least a fourth semester of college level competency in one modern language is required prior to Advancement to Degree Candidacy.
  - c. A thesis will be required of all students.
  - d. At least 15 semester hours in Geography must be earned at the 500-600 levels.
  - e. Required Courses (14 hours)
    - 1) Geog 34.481 Seminar: Selected Topics in Geography (2 hrs.)
    - 2) Geog 34.521 Research Techniques in Geography (3 hrs.)
    - 3) Geog 34.493 Field Geography (3 hrs.)
    - 4) Geog 34.697 Research (Thesis) (6 hrs.)
  - f. Elective Courses (16 hours)
    - 1) Courses must be in Geography
3. Comprehensive Examination. The student must take and pass a Comprehensive Examination (written or oral) not earlier than the term during which he will complete his course work.

*THE MASTER OF ARTS IN GENERAL PSYCHOLOGY*

The Master of Arts degree in General Psychology is designed to train qualified students in the area of General Psychology. The General Psychology program has as its premise a thorough training in scientific psychology, which will enable the student to obtain a firm background before specializing in a specific psychological area. Training in scientific methodology and procedures is required.

Students who complete this program will be prepared either to pursue more advanced degrees in Psychology or compete adequately in the job market for trained psychometricians, laboratory technicians or experimental designers. Perhaps, most importantly, students completing this program would be available to staff junior college and lower level college and university courses in Psychology.

*Requirements:*

1. Undergraduate Requirements
  - a. Courses in the following areas
    - 1) Statistics (3 hrs.)
    - 2) Experimental Psychology (3 hrs.)
    - 3) History and Systems of Psychology (3 hrs.)
    - 4) Physiological or Comparative Psychology (3 hrs.)
    - 5) Learning (3 hrs.)
2. Course Requirements for the Degree. They may be met by completing the following:
  - a. The Core Program (25 hours)
    - 1) Psyc 70.590 History and Systems (3 hrs.)
    - 2) Psyc 70.587 Experimental Design (3 hrs.)
    - 3) Psyc 70.577 Learning (3 hrs.)
    - 4) Psyc 70.573 Advanced Experimental Psychology (4 hrs.)
    - 5) Psyc 70.579 Seminar (1 hr.)
    - 6) Psyc 70.588 Experimental Design (3 hrs.)
    - 7) Psyc 70.574 Advanced Experimental Psychology (4 hrs.)
    - 8) Psyc 70.580 Seminar (1 hr.)
    - 9) Psyc 70.584 College Teaching Seminar (3 hrs.)
  - b. Elective Courses (5 hrs.)
    - 1) Student may choose any graduate elective at the 300-600 levels.
  - c. Thesis (3 hrs.) An oral defense of the thesis will be required.
  - d. Comprehensive Examination.
 

Following the completion of 30 semester hours, each student must take a 6 hour written comprehensive examination.
  - e. Language Requirement
 

Competency in a foreign language

OR

Proficiency in statistics or computer programming
  - f. Residency
 

Each student must become full-time for at least one semester. During this semester requirements of the College Teaching Seminar will be fulfilled.

### THE MASTER OF ARTS IN SCHOOL PSYCHOLOGY

The Master of Arts Degree Program in School Psychology aims, simultaneously, toward two specific goals. First, it prepares qualified students in theoretical considerations and trains them in clinical skills required for certification as a school psychologist. Because of the broad application of these skills, the students are, at the same time, being prepared to function in other clinical settings as well. Second, it seeks to prepare students for more advanced graduate study in the clinical area.

#### *Requirements:*

1. Undergraduate Requirements in Psychology (total: 27 hours)

a. Courses in the following areas:

1) Six hours chosen from the following:

- a) General Psychology (3 hrs.)
- b) Educational Psychology or Human Growth and Development (3 hrs.)
- c) Child Psychology (3 hrs.)
- d) Adolescent Psychology (3 hrs.)

2) Three hours chosen from the following:

- a) Mental Hygiene (3 hrs.)
- b) Abnormal Psychology (3 hrs.)

3) Three hours chosen from the following:

- a) Systems of Psychology (3 hrs.)
- b) History of Psychology (3 hrs.)

4) Experimental Psychology (3 hrs.)

5) Personality (3 hrs.)

6) Personality Measurement (3 hrs.)

7) Tests and Measurements (3 hrs.)

8) Behavioral Statistics (3 hrs.)

NOTE: These courses cannot be used to meet part of the formal elective requirements for the degree as defined in Paragraph 2 below. These courses must be completed prior to initiation of formal course work for the degree.

2. Course Requirements for the Degree. They may be met by completing either one of the following two plans of study:

a. Plan A. Master of Education with Thesis (Minimum 30 semester hours)

1) Required Courses

- a) Psyc 70.531 Advanced Abnormal Psychology (3 hrs.)
- b) Psyc 70.560 Psychodynamics of Human Behavior (3 hrs.)
- c) Psyc 70.563 Systems of Psychotherapy (3 hrs.)
- d) Psyc 70.591 Projectives I (3 hrs.)

- e) Psyc 70.592 Projectives II (3 hrs.)
- f) Psyc 70.485 Advanced Experimental Design (3 hrs.)
- g) Psyc 70.420 Individual Intelligence Testing (3 hrs.)
- h) Psyc 70.651 Practicum I (3 hrs.)
- i) Psyc 70.652 Practicum II (3 hrs.)
- j) Psyc 70.690 Proseminar (3 hrs.)

NOTE: When this plan is adopted by the student, 3 credits of the above required courses may be waived.

b. Plan B. Master of Education without Thesis (Minimum 33 or 34 semester hours)

1) Required Courses

- a) Psyc 70.531 Advanced Abnormal Psychology (3 hrs.)
- b) Psyc 70.560 Psychodynamics of Human Behavior (3 hrs.)
- c) Psyc 70.563 Systems of Psychotherapy (3 hrs.)
- d) Psyc 70.591 Projectives I (3 hrs.)
- e) Psyc 70.592 Advanced Experimental Design (3 hrs.)
- f) Psyc 70.485 Advanced Experimental Design (3 hrs.)
- g) Psyc 70.420 Individual Intelligence Testing (3 hrs.)
- h) Psyc 70.651 Practicum I (3 hrs.)
- i) Psyc 70.652 Practicum II (3 hrs.)
- j) Psyc 70.690 Proseminar (3 hrs.)
- k) One additional elective Psychology elective (3 hrs.)

## MASTER OF SCIENCE IN BIOLOGY

The Master of Science Degree Program in Biology is designed to provide greater knowledge and understanding of biology and to help the student develop a proficiency in independent thought, inquiry, and research. The degree program will provide the necessary background and experience for those desiring to teach in the increasing number of junior and community colleges, those whose employment requires an advanced degree in biology, and those who plan further study for the Ph.D. The program will enable secondary school teachers to extend their knowledge and increase their competence in cultivating the spirit of scientific inquiry through their own participation in research.

### Requirements:

1. Supplemental application must be filed for admission to the Master of Science in Biology.
2. An interview with members of the Biological Sciences faculty should be obtained.

3. Three letters of recommendation from persons familiar with the student's scientific work and aptitude must be sent to the Graduate Officer.
4. Undergraduate Requirements
  - a. A thorough preparation in general biology.
  - b. Courses in botany, zoology, and genetics as well as allied courses in general and organic chemistry, physics, and mathematics.
5. An acceptable score on the Advanced Test of the Graduate Record Exam must be submitted as part of the Advancement to Degree Candidacy step or as fulfillment of a Qualifying Program requirement.
6. Course Requirements for the Degree (Minimum 30 hours) 18 hours must be at the 500-600 levels. A thesis based on laboratory and/or field research is required.
  - a. Required Courses (8-11 hrs.)
    - 1) Biol 14.697 Graduate Seminar (1 hr.)
    - 2) Biol 14.698 Graduate Seminar (1 hr.)
    - 3) Biol 14.699 Thesis (6-9 hrs.)
  - b. Elective Courses (19-22 hrs.)
    - 1) These are to be chosen from courses approved by the Students' Advisory Committee.
    - 2) At least 10 of these elective credits must be selected from courses numbered 500-699.

#### THE MASTER OF EDUCATION IN ART EDUCATION

The Master of Education Degree Program in Art Education is structured to further an understanding of the creative process, with its educational implications, and to develop increased sensitivity to, and skill in the graphic and plastic arts. Students are encouraged to specialize in an area of expression so that they may develop greater understanding and professional competence.

##### *Requirements:*

1. Undergraduate Requirements in Education and Art
  - a. Certification as a public school art teacher  
OR
  - b. Courses in both Art and Education areas as follows: (total: 32 hours):
    - 1) In Art (27 hours)
      - a) Fundamentals of Design (two and three dimensional) (6 hrs.)
      - b) Ceramics and Sculpture (6 hrs.)
      - c) Drawing, Painting and Graphic processes (some credit required in each area) (9 hrs.)
      - d) Art History (6 hrs.)

- 2) In Education (5 hours)
  - a) Educational Psychology or Human Growth and Development (3 hrs.)
  - b) Methods of Teaching Art (2 hrs.)
2. Course Requirements for the Degree. They may be met by completing either one of the following two plans of study:
  - a. Plan A. Master of Education with Thesis (Minimum 30 semester hours)
    - 1) Required Courses (15 hours)
      - a) Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
      - b) Psyc 70.511 Developmental Psychology (3 hrs.)  
(Formerly Human Growth & Development — Advanced)
      - c) Art 12.697 Art Education Seminar (3 hrs.)
      - d) Art 12.595 Research in Art and Art Education (3 hrs.)
      - e) Art 12.699 Master of Education Thesis (3 hrs.)
    - 2) The Thesis requirement may be met in one of two ways:
      - a) By writing a standard thesis dealing with a selected problem in Art and Art Education.
      - b) By undertaking a creative project. The Department must approve the project proposal. It is expected that the student will exhibit the completed project and accompany it with a suitable paper defining its scope and philosophy.
    - 3) Elective Courses (15 hours)
      - a) Courses numbered 500-699 should ordinarily be chosen, but a maximum of fifteen hours of work in courses numbered 300-499 may be taken with approval of the student's adviser.
      - b) Six hours may be taken in departments other than Art.
  - b. Plan B. Master of Education without Thesis (Minimum 33 semester hours)
    - 1) Required Courses (12 hours)
      - a) Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
      - b) Psyc 70.511 Developmental Psychology (3 hrs.)  
(Formerly Human Growth & Development — Advanced)
      - c) Art 12.697 Art Education Seminar (3 hrs.)
      - d) Art 12.595 Research in Art and Art Education (3 hrs.)
    - 2) Elective Courses (21 hours)
      - a) Courses numbered 500-699 should ordinarily be chosen, but a maximum of fifteen hours of work in graduate level courses numbered 300-499 may be taken with approval of the student's adviser.
      - b) Six hours may be taken in departments other than Art.

### THE MASTER OF EDUCATION IN EARLY CHILDHOOD EDUCATION

The Master of Education Degree Program in Early Childhood Education is structured to help teachers and others to increase their competence for working in educational programs for children ages three through eight years. It is designed to prepare teachers, directors, and supervisors for various educational programs for young children such as day care centers, public and private nursery schools, kindergartens, and primary schools.

#### Requirements:

1. Undergraduate Requirements in Education
  - a. Certification as an early childhood education public school teacher  
OR
  - b. Certification as an elementary public school teacher plus six semester hours in Early Childhood Education at the undergraduate level  
OR
  - c. Courses in the following areas (total: 15 hours)
    - 1) General Psychology, Educational Psychology, or Psychology of Learning (3 hrs.)
    - 2) Child Psychology, Child Growth and Development, Human Growth and Development, or Personality (3 hrs.)
    - 3) Curriculum and Methods in Early Childhood Education (6 hrs.)
    - 4) Three hours chosen from the following areas:
      - a) History of Education
      - b) Foundations of Education
- NOTE: These courses cannot be used to meet part of the formal elective requirements for the degree as defined below.
2. Course Requirements for the Degree. They may be met by completing either one of the following two plans of study:
  - a. Plan A. Master of Education with Thesis (Minimum 30 semester hours)
    - 1) Required Courses (12 hours)
      - a) Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
      - b) Edpm 28.691 Introduction to Research in Education (3 hrs.)
      - c) Edpm 28.699 Master of Education Thesis (3 hrs.)
      - d) Psyc 70.511 Developmental Psychology (3 hrs.)  
(Formerly Human Growth & Development — Advanced)
    - 2) Elective Courses (18 hours)
      - a) Twelve hours must be earned in departments other than education. Fewer than twelve hours may be earned in departments other than education with approval of the Program Coordinator.
      - b) At least six hours must be selected from courses numbered 500-699.

- c) At least six hours must be selected from the following courses in Early Childhood Education:
  - Educ 26.381 Problems in Early Childhood Education (3 hrs.)
  - Educ 26.391 Laboratory Experiences in Early Childhood Education (3 hrs.)
  - Educ 26.507 Home, School, Community (3 hrs.)
  - Educ 26.509 Growth and Development of Young Children (3 hrs.)
  - Educ 26.521 Language Development and Reading in Early Childhood Education (3 hrs.)
  - Educ 26.547 The Teaching Process: Early Childhood Education (3 hrs.)
  - Educ 26.553 Perceptual and Cognitive Development of Young Children (3 hrs.)
- b. Plan B. Master of Education without Thesis (Minimum 33 semester hours)
  - 1) Required Courses (12 hours)
    - a) Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
    - b) Educ 26.573 Seminar in Early Childhood Education (3 hrs.)
    - c) Edpm 28.691 Introduction to Research in Education (3 hrs.)
    - d) Psyc 70.511 Developmental Psychology (3 hrs.)  
(Formerly Human Growth and Development — Advanced)
  - 2) Elective Courses (21 hours)
    - a) Twelve hours may be earned in departments other than education. Fewer than twelve hours may be earned in departments other than education with the approval of the Program Coordinator.
    - b) At least six hours must be selected from courses numbered 500-699.
    - c) At least nine hours must be selected from the following courses in Early Childhood Education:
      - Educ 26.381 Problems in Early Childhood Education (3 hrs.)
      - Educ 26.391 Laboratory Experiences in Early Childhood Education (3 hrs.)
      - Educ 26.507 Home, School, Community (3 hrs.)
      - Educ 26.509 Growth and Development of Young Children (3 hrs.)
      - Educ 26.521 Language Development and Reading in Early Childhood Education (3 hrs.)
      - Educ 26.547 The Teaching Process: Early Childhood Education (3 hrs.)

Educ 26.553 Perceptual and Cognitive Development of Young Children (3 hrs.)

*THE MASTER OF EDUCATION IN ELEMENTARY EDUCATION*

The Master of Education Degree Program in Elementary Education consists of required and elective courses combined into an individual plan which helps the student broaden and deepen his understandings, improve skills and insights related to elementary teaching, and pursue his particular professional goals. In required courses and experiences he is provided with opportunities to clarify philosophical and psychological bases of teaching-learning, to examine recent educational developments, and to grow in the spirit and skills of inquiry. Electives from education and non-education courses make possible a total program planned in relation to special needs and aspirations of the student.

*Requirements:*

1. Undergraduate Requirements in Education
  - a. Certification as an elementary public school teacher  
OR
  - b. Courses in the following areas (total: 12 hours):
    - 1) Educational Psychology or Human Growth and Development (3 hrs.)
    - 2) Organization and Curriculum of the Elementary School (6 hrs.)
    - 3) Three hours chosen from the following areas:
      - a) History of Education
      - b) Foundations of Education

NOTE: These courses cannot be used to meet part of the formal elective requirements for the degree as defined below.

2. Course Requirements for the Degree. They may be met by completing either one of the following two plans of study:
  - a. Plan A. Master of Education with Thesis (Minimum 30 semester hours)
    - 1) Required Courses (12 hours)
      - a) Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
      - b) Edpm 28.691 Introduction to Research in Education (3 hrs.)
      - c) Edpm 28.699 Master of Education Thesis (3 hrs.)
      - d) Psyc 70.511 Developmental Psychology (3 hrs.)  
(Formerly Human Growth & Development — Advanced)
    - 2) Elective Courses (18 hours)
      - a) Twelve hours must be earned in departments other than education.

- b) Six hours must be earned in education courses.
  - c) At least six hours must be selected from courses numbered 500-699.
- b. Plan B. Master of Education without Thesis (Minimum 33 semester hours)
- 1) Required Courses (12 hours)
    - a) Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
    - b) Edpm 28.691 Introduction to Research in Education (3 hrs.)
    - c) Educ 26.675 Seminar in Elementary Education (3 hrs.)
    - d) Psyc 70.511 Developmental Psychology (3 hrs.)  
(Formerly Human Growth & Development — Advanced)
  - 2) Elective Courses (21 hours)
    - a) Twelve or more hours must be earned in departments other than Education.
    - b) Six hours must be earned in education courses.
    - c) At least six hours must be selected from courses numbered 500-699.

#### THE MASTER OF EDUCATION IN GUIDANCE AND COUNSELING

The purpose of the Graduate Program in Guidance and Counseling is to develop professionally responsible individuals who are capable of facilitating a counselee's personal growth and development. He is trained to help his client to explore his educational, vocational and personal goals and seeks to facilitate the counselee's development of a meaningful course of action in these areas. The training program requires an understanding of psychological principles and reflects professional practices and responsibilities consistent with current research findings.

#### Requirements:

- 1. Undergraduate Requirements in Psychology (total: 9 hours)  
The following courses or their equivalents are required of all candidates for admission to the program:
  - a. Introduction to Tests and Measurements (3 hrs.)
  - b. Introduction to and Analysis of Interpersonal Relationships (3 hrs.)
  - c. Systems and Techniques of Counseling Practice (3 hrs.)
- 2. Course Requirements for the Degree (Minimum 33 semester hours)
  - a. Required courses for all candidates (6 hours)
    - 1) Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
    - 2) Psyc 70.511 Developmental Psychology (3 hrs.)  
(Formerly Human Growth & Development — Advanced)

- b. For students whose goals are related to the elementary school age child, the following courses are required: (15 hours)
  - 1) Psyc 70.605 Principles of Guidance (3 hrs.)
  - 2) Psyc 70.611 Analysis of the Individual (3 hrs.)
  - 3) Psyc 70.645 Counseling Practicum I (3 hrs.)
  - 4) Psyc 70.635 Communication Media I (3 hrs.)
  - 5) Psyc 70.636 Communication Media II (3 hrs.)
- c. For students whose goals are related to the secondary school age child, the following courses are required: (15 hours)
  - 1) Psyc 70.605 Principles of Guidance (3 hrs.)
  - 2) Psyc 70.611 Analysis of the Individual (3 hrs.)
  - 3) Psyc 70.607 Occupational and Educational Information (3 hrs.)
  - 4) Psyc 70.645 Counseling Practicum I (3 hrs.)
  - 5) Psyc 70.646 Guidance Practicum II (3 hrs.)
- d. For students whose goals are related to counseling in non-educational facilities, the following courses are required: (6 hours)
  - 1) Psyc 70.645 Counseling Practicum I (3 hrs.)
  - 2) Psyc 70.646 Guidance Practicum II (3 hrs.)

### THE MASTER OF EDUCATION IN MUSIC EDUCATION

The Master of Education Degree Program in Music Education incorporates the faculties, physical facilities, and course offerings of both Towson State College and Morgan State College. In addition to a beneficial interaction between the two institutions, this cooperative Master's Degree program offers the student broader and deeper understandings in realizing his professional goals. Most basic courses will be offered at both institutions; and, in such cases, textbooks and syllabi of comparable content will be used. However, certain required courses and certain elective courses will be offered on only one campus.

#### Requirements:

1. Undergraduate Requirements in Education and Music
  - a. Hold a Bachelor's degree from an accredited college or university and certification as a public school music teacher
  - OR
  - Hold a Bachelor's degree from an accredited college or university with a minimum of 49 credits in undergraduate music courses.
  - b. Grade point average of 3.0 or better in music courses
  - c. Be interviewed by the graduate coordinator
2. Course Requirements for the Degree. These may be met by completing one of the following two plans of study:

- a. Plan A. Master of Education in Music Education with Thesis (Minimum 30 semester hours)
- 1) Required Courses (12 hours)  
T indicates course offered at Towson State College  
M indicates course offered at Morgan State College  
(consult Morgan State College Graduate Bulletin for course numbers)
    - a) T Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
    - b) T Psyc 70.511 Developmental Psychology (3 hrs.)
    - c) T M Musc 54.595 Research in Music and Music Education (3 hrs.)
    - d) T M Musc 54.501 Seminar in Current Trends in Music and Music Education (3 hrs.)
  - 2) Required Courses (3 hours) (Select one)
    - a) T Musc 54.562 Seminar in Choral Music (3 hrs.)
    - b) M Musc Seminar in Instrumental Music (3 hrs.)
  - 3) T Musc 54.699 Thesis (3 hrs.)  
This requirement may be met in one of the following ways:
    - a) By writing a thesis dealing with a selected problem in Music or Music Education
    - b) By writing an original composition of major proportions and a paper concerning salient aspects of the composition
    - c) By presenting a full recital on the graduate level
  - 4) Elective Courses (12 hours) (Selected from three areas)  
Area I (3-6 hours)
    - a) T Musc 54.403 Music of the Classical Period (3 hrs.)
    - b) T Musc 54.404 Music of the Romantic Period (3 hrs.)
    - c) T Musc 54.405 Contemporary Music (3 hrs.)
    - d) T Musc 54.411 Survey of Opera (3 hrs.)
    - e) T Musc 54.421 American Music (3 hrs.)
    - f) M Musc Music Prior to 1600 (3 hrs.)
    - g) M Musc Music of the Baroque Period (3 hrs.)
    - h) M Musc Advanced Choral Literature (3 hrs.)
    - i) M Musc Symphonic Literature (3 hrs.)
    - j) M Musc Evolution of Afro-American Music (3 hrs.)
    - k) M Musc Seminar in Non-Western Music (3 hrs.)  
Area II (3-6 hours)
    - a) T M Musc 54.435 Form and Analysis (3 hrs.)
    - b) T M Musc 54.535 Advanced Choral and Instrumental Arranging (3 hrs.)
    - c) T M Musc 54.415 Symphonic Literature (3 hrs.)

- d) T Musc 54.433 Advanced Theory (3 hrs.)
- e) T Musc 54.539 Music Composition (3 hrs.)
- f) T Musc 54.427 Jazz Arranging (3 hrs.)
- g) M Musc Advanced Orchestration (3 hrs.)
- h) M Musc Electronic Music (3 hrs.)
- Area III (3-6 hours)
- a) T M Musc 54.407 Organization and Administration of Music Education (3 hrs.)
- b) T M Musc 54.471 through  
Musc 54.488 Private Instruction: Piano, Instrumental, Voice,  
Composition (1-3 hrs.)
- c) T M Musc 54.571 through  
Musc 54.588 Private Instruction: Piano, Instrumental, Voice,  
Composition (1-3 hrs.)
- d) T Musc 54.409-410 Teaching String Instruments (3 hrs.)
- e) T Musc 54.425 Advanced Percussion (3 hrs.)
- f) T Musc 54.429 Jazz Improvisation (3 hrs.)
- g) M Musc Opera Workshop (3 hrs.)
- h) M Musc Musical Theatre (3 hrs.)
- i) M Musc Vocal Pedagogy (3 hrs.)
- j) M Musc Piano Pedagogy (3 hrs.)
- k) M Musc Advanced Strings (3 hrs.)
- l) M Musc Advanced Brass (3 hrs.)
- m) M Musc Advanced Woodwinds (3 hrs.)
- n) M Musc The Art of Accompanying (3 hrs.)
- e) T Musc 54.425 Advanced Percussion (3 hrs.)
- b. Plan B. Master of Education in Music Education without Thesis (Minimum 33 semester hours plus a research paper in one of the seminar courses)
  - 1) Required Courses (15 hours)  
Same as above, but does not require Musc 54.699 Thesis
  - 2) Elective Courses (18 hours)  
Area I As above (3-9 hours)  
Area II As above (3-9 hours)  
Area III As above (3-9 hours)

### THE MASTER OF EDUCATION IN READING

The Master of Education Degree Program in Reading is a program offered cooperatively by Towson State College and Morgan State College. It is designed to offer experiences that will improve the teaching of reading at all

levels from kindergarten through college. Specifically, the program seeks to offer courses in reading for teachers and administrators who are interested in improving their knowledge of reading and to prepare reading clinicians to teach developmental, corrective, and remedial reading. Furthermore, the program is designed to prepare reading specialists who will be capable of filling leadership roles in reading improvement programs in schools and clinics.

*Requirements:*

1. Undergraduate Requirements in Education
  - a. Bachelor's degree from accredited college or university
  - b. Minimum scholastic average of 3.0 or eligibility through the Qualifying Program
2. Course Requirements for the Degree. (Minimum 33 semester hours) These requirements may be met by completing the following:
  - a. Required Reading Courses (12 hours)
 

*T indicates course offered at Towson State College*  
*M indicates course offered at Morgan State College*

    - 1) T Educ 26.623 Methods and Materials in Teaching Reading in Elementary Schools (3 hrs.)
    - 2) T Educ 26.621 Reading Disabilities (3 hrs.)
    - 3) T Educ 26.625 Clinic Practicum in Reading (3 hrs.)
    - 4) T Educ 26.629 Seminar in Reading (3 hrs.)  
 M Ed 26.507 Seminar in Reading (3 hrs.)
  - b. Additional Required Courses (12 hours)
    - 1) T Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
    - 2) T Psyc 70.511 Developmental Psychology (3 hrs.)
    - 3) T Psyc 70.411 Tests and Measurements in Education (3 hrs.)
    - 4) T Psyc 70.540 Advanced Mental Hygiene (3 hrs.)
  - c. Elective Courses (9 hours)
    - 1) M Eng 30.561 Introduction to Linguistics (3 hrs.)
    - 2) M Eng 30.590 Phonetics of American English (3 hrs.)
    - 3) T Psyc 70.605 Principles of Guidance (3 hrs.)
    - 4) T Edpm 28.417 Children's Literature or  
 T Edpm 28.418 Juvenile Literature (3 hrs.)
    - 5) M Ed 26.501 Supervision and Curriculum in Reading (3 hrs.)
    - 6) T Educ 26.627 Evaluation of Reading Research (3 hrs.)
    - 7) M Ed 508 Teaching Reading in the Secondary Schools (3 hrs.)
    - 8) T Engl 30.430 History of the English Language (3 hrs.)

NOTE 1: The "Clinic Practicum in Reading" will be a practicum course taught at Towson State College.

NOTE 2: The "Seminar in Reading" course will be one of the final courses in the sequence. This course will be taught at Morgan State College by professors from both Towson State College and Morgan State College. Consultants from other disciplines (medical, social, etc.) will also be invited to lecture to this advanced group.

NOTE 3: The elective courses may be taken at either Towson State College or Morgan State College with the permission of the director of the respective program.

NOTE 4: Other elective courses may be substituted with the permission of the director of the respective program.

### THE MASTER OF EDUCATION IN SECONDARY EDUCATION

The Master of Education Degree Program in Secondary Education is designed to help teachers develop competencies that will contribute to their success in their educational responsibilities. The program provides advanced study in the general areas of education, psychology, and a teaching field. Opportunities are given for the graduate student to pursue certain areas of interest through provisions for elective courses.

#### *Requirements:*

1. Undergraduate Requirements in Education
  - a. Certification as a secondary public school teacher
  - OR
  - b. Courses in the following areas (total: 10 hours):
    - 1) Educational Psychology or Human Growth and Development (3 hrs.)
    - 2) Principles and Methods in Secondary Education (4 hrs.)
    - 3) Three hours chosen from the following areas:
      - a) History of Education
      - b) Foundations of Education

NOTE: These courses cannot be used to meet part of the formal elective requirements for the degree as defined below.
2. Course Requirements for the Degree. They may be met by completing either one of the following two plans of study:
  - a. Plan A. Master of Education with Thesis (Minimum 30 semester hours)
    - 1) Required Courses (12 hours)
      - a) Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
      - b) Edpm 28.691 Introduction to Research in Education (3 hrs.)
      - c) Edpm 28.699 Master of Education Thesis (3 hrs.)
      - d) Psyc 70.511 Developmental Psychology (3 hrs.)  
(Formerly Human Growth & Development — Advanced)

- 2) Elective Courses (18 hours)
  - a) Twelve or more hours must be earned in departments other than Education.
  - b) At least six hours must be selected from courses numbered 500-699.
- 3) Students must present an area of specialization (within the 18 hours of elective courses specified above) in a non-Education field. A sequence of courses to meet this requirement must be approved by the student's adviser and recorded on the Program of Study form.
- b. Plan B. Master of Education without Thesis (Minimum 33 hours)
  - 1) Required Courses (12 hours)
    - a) Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
    - b) Edpm 28.691 Introduction to Research in Education (3 hrs.)
    - c) Edfs 27.681 Seminar in Secondary Education (3 hrs.)
    - d) Psyc 70.511 Developmental Psychology (3 hrs.)  
(Formerly Human Growth & Development — Advanced)
  - 2) Elective Courses (21 hours)
    - a) Twelve or more hours must be earned in departments other than Education.
    - b) At least six hours must be selected from courses numbered 500-699.
  - 3) Students must present an area of specialization (within the 21 hours of elective courses specified above) in a non-Education field. A sequence of courses to meet this requirement must be approved by the student's adviser and recorded on the Program of Study form.

### *THE MASTER OF EDUCATION IN URBAN TEACHING*

The Master of Education Degree Program in Urban Teaching is designed to prepare students who have had little or no professional training to teach in the inner city schools of large metropolitan areas such as Baltimore City. Program graduates will be fully certified to teach in the State of Maryland and in their area of specialization.

#### *Requirements:*

1. Undergraduate Requirements in Education  
There are no specific undergraduate requirements for admission to this program.
2. Course Requirements for the Degree. They may be met by completing the following:

a. For Elementary Teachers

- 1) Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
- 2) Edpm 28.691 Introduction to Research in Education (3 hrs.)
- 3) Edpm 28.699 Master of Education Thesis or  
Educ 26.675 Seminar in Elementary Education (3 hrs.)
- 4) Psyc 70.511 Developmental Psychology (3 hrs.)

Specific course work in the area of Urban Education is currently under revision. Students may consult the Graduate Division for further program information.

b. For Secondary Teachers (43 hours)

- 1) Edfs 27.501 Educational Ideas in Historical Perspective (3 hrs.)
- 2) Edpm 28.691 Introduction to Research in Education (3 hrs.)
- 3) Edpm 28.699 Master of Education Thesis or  
Edfs 27. 681 Seminar in Secondary Education (3 hrs.)
- 4) Psyc 70.511 Development Psychology (3 hrs.)

Specific course work in the area of Urban Education is currently under revision. Students may consult the Graduate Division for further program information.



## COURSE DESCRIPTIONS

Course descriptions for all 300-level through 600-level courses offered by the College and applicable to graduate students are listed in this section of the Bulletin.

Courses offered in any session are selected from the courses listed. Students should consult the course schedules issued by the Registrar's Office and the Evening and Summer School Office to determine the courses offered in a particular session.

Each department of the College has one or more code numbers and abbreviations for each general subject area (e.g., French in the Modern Language Department). The code abbreviations are shown in parentheses at the head of the course listings. The code numbers form a two digit Subject Classification Number, which precedes a three digit Course Classification Number, forming a five digit Course Number. Each course has a distinctive number.

Semesters of a year course whose numbers are separated by a hyphen are to be taken in sequence. When course numbers are separated by a comma, either semester may be taken independently of the other. Old course numbers appear in parentheses.

## ART

### ART COURSES (ART)

#### *Upper Division — Undergraduate and Graduate*

- 12.318 (418) JEWELRY (2) Investigation into aesthetics, history, function and design of jewelry. Lecture and directed studio problems in forming, joining and finishing of metallic and non-metallic materials. Prerequisite: 12.227 or consent of instructor.
- 12.323 (423) PICASSO TO THE PRESENT (3) Art History with emphasis on painting from 1900 to the present. Slide lectures, directed readings and museum trips. Prerequisites: 12.121, and 12.122.
- 12.324 HENRY MOORE TO THE PRESENT (3) Art History with emphasis on sculpture from 1900 to the present including new media and happenings. Directed readings and museum trips. Prerequisite: 12.121 and 12.122.
- 12.325 FRANK LLOYD WRIGHT TO THE PRESENT (3) Art History with emphasis on architecture from 1900 to the present including time-space concepts. Prerequisite: 12.121 and 12.122.

- 12.405 ART PRINCIPLES AND CRITICISM (2) Principle concepts of art; theories of perception and aesthetics; application of theories to the interpretation of specific works of art. Prerequisite: 12.105 or 12.121 or 12.122.
- 12.414-415 ADVANCED STUDIO (2-4, 2-4) Practice for advanced students in their fields of special interest. Prerequisite: Courses in the field of special interest and permission of department chairman.
- 12.449 INTAGLIO PROCESS (3) Personal expression in printmaking: Etching, drypoint, aquatint, engraving, and other intaglio processes. Prerequisite: 12.103, 12.111 or consent of instructor.
- 12.451 LITHOGRAPHIC PROCESS (3) Personal expression through printing from litho stones and plates. Prerequisite: 12.103, 12.111 or consent of instructor.
- 12.455 PRO-SEMINAR IN THE TEACHING OF ART (3) A professional seminar for Art Education majors. Discussion of problems in the current teaching experience. Prerequisite: Permission of department chairman. Concurrent with student teaching.
- 12.471 ADVANCED ART EDUCATION (3) Major art education, problems at all levels; materials and skills in relation to classroom needs. Prerequisite: 12.371 or equivalent.
- 12.475 (375) TEACHING ART IN THE ELEMENTARY SCHOOL (2) Concurrent course with 12.479, Art in the Secondary School. For course description see 12.479. Open only to Art Education Majors. Prerequisite: Approval of Art Department.
- 12.479 (379) TEACHING ART IN THE SECONDARY SCHOOL (2) Theoretic basis of art education, the function of the art specialist, and instructional materials and skills. Concurrent course with 12.475. Open only to art education majors. Prerequisite: Approval of Art Department.
- 12.485 SEMINAR IN ART HISTORY (2) Intensive analysis of a defined historical period or stylistic development in art. Directed readings in both period and contemporary sources. Discussions and museum tours. Prerequisite: 12.121 and 12.122 or consent of instructor.

## Graduate Division

- 12.511 DRAWING (2) Advanced problems in expressive draftsmanship. Prerequisite: 12.211 or consent of instructor.
- 12.514-515 GRADUATE STUDIO (2-4, 2-4) Independent work in field of special interest with weekly criticism by staff. Prerequisite: Undergraduate work in field of specialization, permission of department chairman.
- 12.529 OIL PAINTING (3) For students with previous experience in painting, consideration of current trends and styles; studio work, museum visits, lectures. Prerequisite: 12.329 or equivalent.
- 12.530 WATERCOLOR (3) Consideration of current trends and outstanding painters and styles. Studio work, museum visits, lectures. Prerequisite: 12.330 or consent of instructor.
- 12.531 CERAMICS (3) Advanced work in ceramic design and techniques of glazes, clay bodies, firing. Prerequisite: 12.331 or consent of instructor.
- 12.540 SCULPTURE (3) For students with previous experience in sculpture; consideration of current trends and styles; studio work, museum visits, lectures. Prerequisite: 12.340 or 12.241 and 12.339 or consent of instructor.
- 12.551 GRAPHICS: INTAGLIO, RELIEF (2) Studio work for artists with a basic knowledge of intaglio and/or relief processes. Aspects of mixed media explored. Prerequisite: 12.349 or 12.449.
- 12.553 GRAPHICS: LITHOGRAPHY, SERIGRAPHY (2) Studio work for artists with a basic knowledge of lithography and/or serigraphy. Prerequisite: 12.347 or 12.451 or equivalent.
- 12.595 RESEARCH IN ART AND ART EDUCATION (3) Methods of research applicable to art and art education. Examination of recent research in this field. Students will explore areas of their choice. Prerequisite: Consent of instructor.

12.697 SEMINAR IN ART EDUCATION (3) Investigation of problems in art education and related fields; examination of theories of art and art education, discussion of forces affecting contemporary art education. Prerequisite: 12.595 and consent of instructor.

12.699 ART THESIS: CREATIVE PROJECT (3) If approved, student will pursue his project resulting in an exhibition of his work plus a paper defining the project's scope and philosophy. Prerequisite: 12.697 and consent of department.

## AUDIOVISUAL COMMUNICATIONS

### AUDIOVISUAL COMMUNICATIONS COURSES (AVCO)

#### *Upper Division — Undergraduate and Graduate*

13.401 HISTORY OF EDUCATIONAL TECHNOLOGY AND MATERIALS (3) An examination of the development of education technology with particular emphasis on the influence of government, state departments of education, institutions of higher learning, industry, and professional organizations on the various instructional media. Identification of the contributions of media leaders. LAB FEE \$5.00.

13.415 METHODS AND MATERIALS IN NEW EDUCATIONAL MEDIA (3) Methods of vitalizing learning through the use of motion pictures, television, audio and video recording, field trips, transparencies, filmstrips, slides, and pictures; location of materials, operation of basic equipment and devices; preparation of basic tools of learning. LAB FEE \$5.00.

13.417 CLASSIFICATION AND CATALOGING OF AUDIOVISUAL MATERIALS (3) Emphasis is placed on all types of classifying and cataloging non-print materials in accordance with the Dewey Decimal System. Other systems of classification and cataloging are surveyed. Rules for form of entry, factors determining choice and form of subject heading and descriptive cataloging are studied. This course is designed especially for librarians, media specialists, and teachers. Audiovisual equipment, devices, and materials are used to optimum advantage throughout. LAB FEE \$5.00.

13.431 INSTRUCTIONAL TELEVISION IN CLASSROOM EDUCATION (3) Designed to provide students with understandings of the history, status, and goals of television as it is used in education. Topics covered include television systems, programming sources, legal ramifications, sources of funds, special projects, comparative costs, sources of data, and current research as applicable to public and non-public school classrooms only. LAB FEE \$5.00.

13.433 INSTRUCTIONAL TELEVISION (3) This course is concerned with ITV systems and terminology, the ITV movement, elements of production, classroom utilization of the ITV product, developing the ITV workshop, careers in ITV, and aspects of administration, philosophy, evaluation, and research in ITV. Class projects and some utilization of television equipment play a role in the course. LAB FEE \$5.00.

13.441 COMPUTER TECHNOLOGY AND UTILIZATION (3) Exploratory course concerned with the rationale for, and the use of computers in various phases of education and related areas. The applications of computers are treated in areas such as instructional design (computer-assisted instruction), administrative and personnel services, and cost analysis. Techniques are examined for the organization, storage, processing and retrieval of data. Flow charting and keypunching experiences are included. (Course will not prepare students for positions as programmers). LAB FEE \$5.00.

13.453 INTRODUCTION TO AUDIOVISUAL PHOTOGRAPHY (3) Basic philosophy, scope, planning, and laboratory methods and techniques of preparing photographic audiovisual materials. Includes production of color and black and white slides, prints, and filmstrips. LAB FEE \$5.00.

- 13.455 GRAPHIC COMMUNICATIONS (3) Language and design of graphics communications; principles from psychology and the visual arts; basic design principles; laboratory experiences such as layout, air brush techniques, "stat-king" utilizations, headliner and polaroid systems familiarization. LAB FEE \$5.00.
- 13.485 SEMINAR WORKSHOP IN EDUCATIONAL TECHNOLOGY (3) Special problems in educational technology are treated including the philosophy, scope, planning, and techniques of the preparation and production of selected types of photographic and related graphic materials. Computer-assisted instruction, dial access and information and retrieval systems, simulators and trainers as well as significant developments in "hardware" and "software" are also stressed. Prerequisite: Three hours of audiovisual communications courses or departmental approval. LAB FEE \$5.00.
- 13.487 THEORY AND TECHNIQUES OF LINEAR PROGRAMMING (3) Acquaints students with philosophy and principles of linear programming; analysis and evaluation of commercially prepared and instructor-made programs; instructional utilization; current research, developments, and trends. An opportunity is provided for the student to develop a linear program in his own area of concentration. Prerequisite: Teaching experience and departmental approval. LAB FEE \$5.00.
- 13.488 THEORY AND TECHNIQUES OF INTRINSIC PROGRAMMING (3) Principles and philosophy of intrinsic programming as related to the Crowderian techniques of programming; analysis of development; consideration of psychological learning principles involved; relation to and utilization in computer-assisted instruction. An opportunity is afforded the student to develop an intrinsic program in his area of interest. Prerequisite: Teaching experience and course in linear programming. LAB FEE \$5.00.

### *Graduate Division*

- 13.501 ORGANIZATION, ADMINISTRATION AND SUPERVISION OF AUDIOVISUAL COMMUNICATIONS PROGRAM (3) Organizational patterns, management procedures, and supervisory methods and techniques for audiovisual communications programs are considered. Major topics include: facilities; finance; selection, procurement, security and basic maintenance of equipment and materials; center operation; extension and in-service programs; assessments of systems and programs; and public relations. Prerequisite: Six hours of audiovisual communications courses and/or departmental approval. LAB FEE \$5.00.
- 13.557 SPECIAL PROJECTS IN THE PREPARATION OF AUDIOVISUAL MATERIALS (3) The theory, planning, and application of advanced methods and techniques in the preparation of audiovisual materials will be stressed. Student projects may involve aspects of photography, printing, holography, and related materials production. Field trips will also play an important role. Prerequisite: 13.453 or departmental approval. LAB FEE \$5.00.
- 13.563 APPLIED PSYCHOLOGY OF LEARNING (3) Includes Gagne's types of learning and recent psychological findings as applied to instructional communications in such areas as: programmed instruction, sensory materials of learning, dial access and information retrieval systems, and instructional television. LAB FEE \$5.00.
- 13.573 INSTRUCTIONAL AND FACILITY DESIGN (3) A systems approach to the integration of hardware, software, and personnel into a single unit with a schedule of time and sequential phasing to ensure orderly relationships and interaction of human, technical, and environmental resources to fulfill instructional goals. Included are the application of systems design to mediated self-instruction as part of individually prescribed instruction as well as systems design to large group or multi-media instruction. Student projects include both instructional and facility designs for academic or training utilization. Prerequisite: Six hours of audiovisual communications courses and/or departmental approval. LAB FEE \$5.00.
- 13.689 INTERNSHIP IN AUDIOVISUAL COMMUNICATIONS (3) Practical experience in audiovisual communications is provided. The intern will work cooperatively under the direction of an appropriate College faculty member and appropriate audiovisual field supervisor. He will engage in all aspects of the school system program as related to audiovisual communications. In

addition, he will become familiar, through visitation, with State and national audiovisual communications programs. Prerequisite: Six hours of audiovisual communications courses and departmental approval. LAB FEE \$5.00.

- 13.695 THEORY AND RESEARCH IN AUDIOVISUAL COMMUNICATIONS (3) Basic elements of communications theory are studied and applied to audiovisual communications. Relationships between the learning process and perception are reviewed in terms of communications. Selected communications systems are examined and research in audiovisual communications is analyzed and discussed. Prerequisite: Six hours of audiovisual communications courses or departmental approval. LAB FEE \$5.00.

## BIOLOGICAL SCIENCES

### BIOLOGY COURSES (BIOL)

#### *Upper Division — Undergraduate and Graduate*

- 14.301 (401) FIELD NATURAL SCIENCE (4) A study of various natural environments to determine their physical and biological components and to understand the relationship of these forms to one another and to man. Emphasis is on field observation. An average of three laboratory hours per week.
- 14.304 (403) GENERAL ECOLOGY (3) Basic principles of ecology. Interrelationships between animals and plants and their natural environments, emphasizing the specific biomes available for study in Maryland. Studies will be based on observations and data collected in the field. An average of two laboratory hours per week.
- 14.310 (471) ENVIRONMENTAL CONSERVATION (4) Basic conservation practices and problems. Soil, water, forest, and wildlife resources with emphasis on interrelationships. Specialists in various phases of local, state, and federal conservation work conduct or assist in the conduct of numerous field trips. Average of two laboratory hours per week.
- 14.318 (407) MICROBIOLOGY (4) Principally a laboratory course investigating such groups of organisms as bacteria, protozoa, and lower plant forms, with emphasis on bacteria. Average of three laboratory hours per week. Prerequisite: CHEM 22.101, 22.102, may be taken concurrently.
- 14.322 (421) MICROTECHNIQUE (3) Techniques used in preparation of plant and animal tissues for histological examination. Average of two laboratory hours per week. Prerequisite: CHEM 22.101, 22.102.
- 14.331 (205) FIELD AND SYSTEMATIC BOTANY (4) Plant kingdom centered around taxonomy and ecology. Methods of collection, identification, and preservation will be developed in the field and laboratory. Average of three laboratory hours per week. Prerequisite: 14.105 or consent of instructor.
- 14.341 PHYCOLOGY (4) The systematics, structure, ecology, physiology, and life-histories of algae. Laboratory will include methods of collection, culture, and experimental study of selected species. Prerequisite: 14.105.
- 14.345 (445) MYCOLOGY (4) An introductory study of the morphology, classification, life histories, and economic applications of the fungi. Average of three laboratory hours per week. Prerequisite: 14.105.
- 14.351 (355) FIELD AND SYSTEMATIC VERTEBRATE ZOOLOGY (4) Evolution, distribution, and definitive features of each class are studied comparatively. Extensive field and laboratory work deals with morphologic, taxonomic, ecological, and behavioral features of selected vertebrate groups and species. Average of three laboratory hours per week.

- 14.353 (453) INVERTEBRATE ZOOLOGY (4) Aquatic and terrestrial species of phyla from the Protozoa through the Echinodermata with special emphasis on local forms. Insects are not considered. Economic, ecological, and taxonomic considerations. Average of three laboratory hours per week.
- 14.360 (422) HISTOLOGY (3) Tissues of the vertebrate body. Average of two laboratory hours per week. Prerequisite: 14.109.
- 14.371 (451) ANIMAL BEHAVIOR (3) The classification and evolutionary aspects of behavior with emphasis on behavioral mechanisms. An average of two laboratory hours per week.
- 14.381 (493) BIOLOGICAL LITERATURE (2) Familiarization with the literature of biology through the preparation of papers requiring a knowledge of techniques for exploring the literature. Two one-hour lectures per week. Prerequisite: At least 6 hours of biology.
- 14.383 (391) CLASSICAL AND CONTEMPORARY READINGS IN THE BIOLOGICAL SCIENCES (2) Historical development of biological concepts through the reading of classical and contemporary writings.
- 14.385 (489) SELECTED GENERAL PRINCIPLES IN BIOLOGY (3) Current directions of biological investigations will be discussed together with a treatment of recent contributions to biological areas and principles. Sufficient background will be given to provide coherence and understanding. Three one-hour lectures. Prerequisite: Consent of instructor.
- 14.401 (411) GENETICS (4) Heredity and variation, and their application to evolution and development. Gene action at the morphological, physiological and biochemical levels. Laboratory work entails use of *Drosophila*, corn, and *Neurospora* in the application of genetic principles. Average of two laboratory hours per week. Prerequisite: CHEM 22.102 and MATH 50.115 or consent of instructor.
- 14.403 (412) ADVANCED GENETICS (3) Emphasis on the molecular basis of gene action. Discussion of current work and methods related to the problem of gene structure, function, and mutation including the translation and regulation of genetic information. Prerequisite: 14.401.
- 14.408 (409) CELL BIOLOGY (4) A study of the molecular and morphological organization of the cell in relationship to functions of the cells organoids. An average of three laboratory hours per week. Prerequisite: 14.105, 14.109, CHEM 22.231.
- 14.411 (405) WILDLIFE BIOLOGY (4) Important wildlife species with emphasis on aspects of research and management. Specific techniques and problems are studied in the field. Average of two hours per week in laboratory and field work. Prerequisite: Consent of Instructor.
- 14.429 (429) BIOANALYSIS (3) Microscopic and biochemical methods used in determining major components and important contaminants of feeds, spices, stabilizers, adhesives, bakery materials, fats and oils, meat products, crystal mixtures, dairy products, etc. An average of two hours per week in laboratory and field work. Prerequisite: Consent of instructor.
- 14.432 VASCULAR PLANT TAXONOMY (4) A study of the history and principles of vascular plant systematics with laboratory time devoted to collection and identification of plants in the local flora. Prerequisite: 14.105 and 14.331.
- 14.433 PLANT SPECIATION (3) A study of such speciation phenomena as race isolation, hybridity, polyploidy, apomixis, and self-compatibility as they influence the evolution of new populations. Prerequisite: 14.331.
- 14.436 (437) PLANT PHYSIOLOGY (4) Life functions of plants as related to structure at all levels: cells, organs, and the complete organism. Consideration of the interaction of environmental and genetic factors on plant metabolism. Average of three laboratory hours per week. Prerequisite: 14.105 and CHEM 22.101, 22.102. CHEM 22.231 recommended.
- 14.439 PLANT ANATOMY (4) Origin and development of organs and tissue systems in vascular plants. Average of three laboratory hours per week. Prerequisite: 14.105.

- 14.441 (441) PLANT PATHOLOGY (4) A study of plant diseases, their symptoms, causal agents, etiology, epidemiology, prevention, and control. Average of three laboratory hours per week. Prerequisite: 14.105.
- 14.456 (457) ORNITHOLOGY (4) Lecture, laboratory and field course in bird identification, structure, behavior, ecology, and general economic relationships. Emphasis is on birds of the Baltimore area. A banding station is operated in conjunction with the course. Occasional field trips. Average of two laboratory hours per week.
- 14.458 (459) MAMMALOLOGY (4) The evolution, comparative morphology, systematics, and distribution of mammals. Representative life histories are considered. Average of two laboratory hours per week. Prerequisite: Consent of instructor.
- 14.461 (461) ENTOMOLOGY (3) Laboratory and field course in insects. Recognition of the more common orders, and a study of their structure, behavior, ecology, economic importance, and control. Average of two laboratory hours per week.
- 14.463 (463) ANIMAL EMBRYOLOGY (4) Developmental anatomy and the underlying principles involved in development. This last area will be approached from an experimental base. Average of three laboratory hours per week. Prerequisite: 14.109.
- 14.465 (465) ANIMAL PHYSIOLOGY (4) Functioning of animal organ systems, with emphasis on the vertebrate body. Average of three laboratory hours per week. Prerequisite: 14.109, CHEM 22.101, 22.102.
- 14.481 (491) DIRECTED READING IN BIOLOGY (1-3) Independent reading in an area selected by the student in consultation with the instructor. Prerequisite: A minimum of 10 hours in biology and consent of instructor.
- 14.485, 14.486 (485) (486) SEMINAR: SPECIAL TOPICS IN BIOLOGY (1, 1) Study and discussion of topics in a specialized area to be selected by instructor. Areas will vary from semester to semester. Prerequisite: A minimum of 10 semester hours in biology and consent of instructor.
- 14.491 (496) INDEPENDENT RESEARCH IN BIOLOGY (2-3) Independent investigation of a problem under the supervision of staff member culminating in a written presentation. Prerequisite: A minimum of 15 semester hours in biology and consent of instructor.
- 14.495 (495) COURSE RESEARCH (1) By invitation or with the consent of instructor. Research related to a specific course successfully completed by the student.

## Graduate Division

- 14.501 (501) CURRENT TOPICS IN BIOLOGY (3) Discussion of current topics in a specific area of biology. The area will vary each semester; therefore, this course may be taken more than once. Prerequisite: A suitable background in the area emphasized and consent of department.
- 14.503 (503) ADVANCED CONCEPTS IN BIOLOGY (3) An advanced study of current literature pertaining to significant concepts and principles in biology. Primarily for students planning a concentration in biology. Prerequisite: a basic background in biology or consent of department.
- 14.505 PROBLEMS IN BIOLOGY (1-3) Laboratory or literature research on a particular problem of interest to the student that does not pertain to his thesis. Credits to be arranged by consultation with the instructor.
- 14.697, 698 GRADUATE SEMINAR (1, 1) Student reports and discussions dealing with biological research. The subject matter will vary each semester. Students are required to enroll for two semesters.
- 14.699 THESIS (6-9) An original investigation to be pursued under the direction of one or more faculty members. Credit granted *only* after thesis has been accepted by the student's thesis committee.

# ECONOMICS AND POLITICAL SCIENCE

## ECONOMICS COURSES (ECON)

### *Upper Division — Undergraduate and Graduate*

- 24.401 (404) HISTORY OF ECONOMIC THOUGHT (3) Development of economic theory; eighteenth and nineteenth century classical schools. Modern economic literature on price, investment and employment. Prerequisite: 24.102.
- 24.407 (407) BUSINESS CYCLES AND FORECASTING (3) Changes in levels of income and output, tools and techniques for forecasting the future state of economic activities, and public proposals for controlling economic fluctuations. Prerequisite: 24.101, 24.102, 24.323.
- 24.485 (481) PROSEMINAR ON ECONOMIC ISSUES (3) Research and writing of papers on an economic issue selected by the instructor. Prerequisite: 24.323, 24.335.

### *Graduate Division*

- 24.585 (489) WORKSHOP ON ECONOMIC EDUCATION (3) Designed to help teachers and school administrators gain a better understanding of the economic working of the society in which we live. Prerequisite: Consent of the instructor.

## POLITICAL SCIENCE COURSES (POSC)

### *Upper Division — Undergraduate and Graduate*

- 68.303 (303) THEORY OF INTERNATIONAL POLITICS (3) The theories of mutual relations of states. Elements of national power; international politics as a struggle for power. Restraints upon the struggle for power. Prerequisite: HIST 40.264.
- 68.305 (305) URBAN GOVERNMENT AND POLITICS (3) The political history of American cities from the eighteenth century through the recent reform movement. City charters, home rule, types of executives, political machines. The metropolitan area. Prerequisite: 68.103 or 68.101.
- 68.307 (315) CONTEMPORARY INTERNATIONAL POLITICS (3) An examination of the conduct of international relations by the Western, the Communist, and the non-aligned blocs in the Post-World War period. Prerequisite: 68.303.
- 68.337 (338) COMPARATIVE GOVERNMENT OF FOREIGN POWERS: THE WESTERN WORLD (3) Constitutional and legal processes of England, France, Italy, and Germany. Some attention given to the small social-democratic states of Europe. Prerequisite: HIST 40.263, 40.264.
- 68.338 (339) COMPARATIVE GOVERNMENT OF FOREIGN POWERS: RUSSIA AND THE EAST (3) Constitutional and legal processes of Russia, Japan, China and other Eastern powers. Prerequisite: HIST 40.263, 40.264.
- 68.375 (376) PUBLIC ADMINISTRATION (3) Administration as a central element of contemporary society, with special reference to the problems of government organization, control, personnel, finance, and public relations. Prerequisite: 68.103.
- 68.401 (301) INTRODUCTION TO LAW (3) The legal processes in the United States. This course is designed primarily for the liberal arts student. Prerequisite: One course in introductory political science.
- 68.417 (417) AMERICAN POLITICAL PARTIES (2) Origin and development of the American two-party system. The activities of pressure groups and organizations, and their effects upon the party system. Prerequisite: 68.103, or HIST 40.145, 40.146.

- 68.418 (418) CONSTITUTIONAL LAW (3) A study of the constitution of the United States based on leading judicial decisions interpreting the constitution and statutes from 1789 to the present. Prerequisite: 68.103.
- 68.427 (426) POLITICAL THEORY (3) Political thought in the West from the Greeks to the end of the sixteenth century. Prerequisite: HIST 40.263, 40.264 or consent of instructor.
- 68.428 (427) POLITICAL THEORY (3) Political philosophers and their writings since the sixteenth century. Attention given to the conflict of ideologies in the twentieth century. Prerequisite: HIST 40.263, 40.264 or consent of instructor.
- 68.432 (432) UNITED STATES-SOVIET RELATIONS (3) Diplomatic, cultural, and economic relations between the U.S.S.R. and the U.S. Emphasis on the period since 1933 with a careful study of the effects of the Second World War upon the balance of power. Prerequisite: HIST 40.263, 40.264, 40.145, and 40.146.
- 68.435 (435) AFRICA IN WORLD POLITICS (3) The role of African nations in the nuclear age, and their efforts to achieve unity. Prerequisite: HIST 40.264, or consent of instructor.
- 68.439 (440) UNITED STATES FOREIGN POLICY IN SOUTHEAST ASIA (3) American foreign policy in Southeast Asia in the Post World War II period. Prerequisite: 68.303, and HIST 40.145, 40.146.
- 68.441 (441) CONTEMPORARY UNITED STATES-WESTERN EUROPEAN RELATIONS (3) Emphasis will be on NATO, the European Economic Community, and the Anglo-American efforts to create an Atlantic partnership between Europe and the United States. Prerequisite: HIST 40.264 and 40.146.
- 68.445 UNITED STATES FOREIGN POLICY IN SOUTH ASIA (3) A discussion of American foreign policy in South Asia mainly since 1945. Emphasis will be on India and Pakistan. Prerequisite: 68.303, HIST 40.312, or consent of instructor.
- 68.450 GROUP POLITICS AND PUBLIC OPINION (3) The role of pressure groups and public opinion in the American political system. Prerequisite: Consent of instructor.
- 68.455-456 (455-456) INTERNATIONAL LAW AND ORGANIZATION (3, 3) An examination of the theories and the development of international law up to the present. The character of the modern state system, the role of international organizations, and international law and resort to force. Prerequisite: 68.303, and HIST 40.264.
- 68.481 (481) INDEPENDENT STUDY (3) Individual and supervised study in selected areas of political science. Prerequisite: Eighteen hours of political science, or consent of the instructor.
- 68.487 (482) SEMINAR IN POLITICAL SCIENCE (3) Various methods and techniques of research in political science, culminating in the preparation of a seminar paper. Prerequisite: Eighteen semester hours in political science, or consent of instructor.
- 68.491 (490) SEMINAR IN CONTEMPORARY UNITED STATES FOREIGN POLICY (3) An examination of the nature, basis, and instruments of American foreign policy in the contemporary age. The formulation, control, and execution of American foreign policy will also be noted. Prerequisites: 68.303, and HIST 40.145, 40.146.

## EDUCATION

### EARLY CHILDHOOD EDUCATION COURSES (EDUC)

#### *Upper Division — Undergraduate and Graduate*

- 26.381 (421, 422) PROBLEMS IN EARLY CHILDHOOD EDUCATION (3) Research findings used as a basis for program planning in nursery school, kindergarten and primary grades; current trends and issues are considered. Prerequisite: Student teaching and/or teaching experience in preschool or primary grades; consent of Department of Education.

- 26.391 (423) LABORATORY EXPERIENCES IN EARLY CHILDHOOD (3) Classroom experiences with children in preschool and primary grades in a variety of teaching-learning situations. Analysis of observations in light of current research. Concurrent with 26.381. Summers only. Prerequisite: Consent of Department of Education.
- 26.490 EARLY CHILDHOOD EDUCATION SUMMER STUDIES ABROAD (1-6) A field study, including cultural tours in selected foreign countries, of current Early Childhood Education programs, facilities and trends. Lectures, observations and personal interactions. Required participation in planned educational activities and a follow-up paper. Prerequisite: Consent of department chairman. Maximum of three credits may be utilized toward a degree program.

## *Graduate Division*

- 26.507 (551) HOME, SCHOOL, COMMUNITY (3) The interaction between home and school in educational programs for young children; survey and evaluation of various techniques of conferencing and working with parents; study of various agencies contributing to the well-being of young children at home and at school. Prerequisite: A course in Sociology and consent of Department of Education.
- 26.509 (552) GROWTH AND DEVELOPMENT OF YOUNG CHILDREN (3) Study of findings of current research in growth and development of young children; methods of studying and evaluating behavior; implications of case study data for curriculum improvement. Prerequisite: PSYC 70.511 and consent of the Department of Education.
- 26.521 (550) LANGUAGE DEVELOPMENT AND READING IN EARLY CHILDHOOD EDUCATION (3) Emphasis on contemporary issues; advanced interpretative and critical evaluations of research in language development and reading instruction in light of basic needs, developmental levels and individual differences in young children. Prerequisite: Undergraduate course in reading and consent of Department of Education.
- 26.547 THE TEACHING PROCESS: EARLY CHILDHOOD EDUCATION (3) Study of recent theories, methods, and findings in research on the teaching process. Analysis of teaching behaviors and exploration of teaching strategies in educational programs for young children. Prerequisite: Teaching experience, PSYC 70.511 or EDFS 27.501, and consent of Department of Education.
- 26.553 (553) PERCEPTUAL AND COGNITIVE DEVELOPMENT OF YOUNG CHILDREN (3) Survey of significant research affecting the theory and programs of education for children ages three to eight years. Prerequisite: PSYC 70.511 and/or 26.509 and consent of Department of Education.
- 26.573 (530) SEMINAR IN EARLY CHILDHOOD EDUCATION (3) Seminar approach to current practices and trends in curriculum, materials, methods, and organization of educational programs for children ages three through eight years. A seminar paper is required. Prerequisite: Nine hours of graduate work in early childhood education.
- 26.599 MASTER'S THESIS IN EARLY CHILDHOOD EDUCATION.

## *ELEMENTARY EDUCATION COURSES (EDUC)*

### *Upper Division — Undergraduate and Graduate*

- 26.417 CHILDREN'S LITERATURE (3) Examination of children's books; study of content and form.
- 26.441 CURRICULUM DEVELOPMENT IN THE ELEMENTARY SCHOOL (2) The child and his curriculum. The teacher's role in curriculum as a process. Principles and philosophies of curriculum development. Objectives, practices, materials, and evaluation trends. Prerequisite: 26.497.
- 26.425 (409) CORRECTIVE READING (2-6) The psychology of reading; methods, principals, techniques, and materials for the classroom teacher in meeting typical learning patterns. Experience in a laboratory center for the development of skill in analysis and correction of reading disabilities. Prerequisite: 26.497 and 26.429 or 26.427, or consent of instructor.

26.427 (453) **READING AND OTHER LANGUAGE ARTS IN THE ELEMENTARY SCHOOL—ADVANCED (2-3)** Application of theory and research to the teaching of reading and the other language arts. Prerequisite: 26.423.

26.429 (454) **METHODS AND PRINCIPLES OF READING INSTRUCTION—ADVANCED (2-3)** Principles involved in building a developmental reading program; prevention of reading difficulties; methods of remedial reading. Prerequisite: 26.423.

### *Graduate Division*

26.5 **THE TEACHING PROCESS: ELEMENTARY EDUCATION (3)** Study of recent theories, methods, and findings in research on the teaching process. Analysis of teaching strategies in educational programs for elementary children. Prerequisite: Teaching experience, and PSYC 70.511 or 27.501, and consent of Department of Education.

26.616 (516) **THE ADMINISTRATION OF THE ELEMENTARY SCHOOL (3)** Analysis of principles of elementary school administration, the administrator's roles and responsibilities, human relations and personnel management, public relations, management of the school unit and curriculum. Prerequisite: Three years teaching experience, teacher certification and nine hours of graduate credit.

26.621 (517) **READING DISABILITIES (3)** Causes of reading disabilities; observation and interview procedures; standard and informal tests; report writing; materials and methods of instruction. Prerequisite: 26.421, or 26.423 or consent of instructor.

26.623 (541) **METHODS AND MATERIALS IN TEACHING READING IN THE ELEMENTARY SCHOOL (3)** Covers trends in methods, materials, and individualized reading designs essential to the organization and administration of a functional reading program. Prerequisite: 26.421, or 26.423 or consent of instructor.

26.625 (583) **CLINIC PRACTICUM IN READING (3)** A clinical or laboratory experience. Students diagnose and treat reading disability cases under the supervision of the directors of the reading program. Prerequisite: 26.621 and 26.623.

26.627 (597) **EVALUATION OF READING RESEARCH (3)** The tools of research and experimentation. The emphasis will be on past and present research relevant to reading. Prerequisite: Course in Tests and Measurements or Statistics and consent of instructor.

26.629 (571) **SEMINAR IN READING (3)** An advanced course to familiarize the student with interdisciplinary aspects of the reading process. The highlight of the course will be the team teaching aspect. Consultants such as psychologists, pediatricians, optometrists, guidance teachers, etc. will play an important role in his course. Prerequisite: 26.621 and 26.623.

26.665 (525) **CURRICULUM DEVELOPMENT IN THE ELEMENTARY SCHOOL (3)** History of curriculum development in the elementary school; basic considerations affecting curriculum development; patterns of organization; objectives, practices, and evaluation; problems in curriculum development. Prerequisite: Consent of instructor.

26.675 (575) **SEMINAR IN ELEMENTARY EDUCATION (3)** Seminar approach to current practices and trends in elementary school curriculum, materials, methods, and organization. A seminar paper is required. Prerequisite: Nine hours of graduate work in education including 28.691.

26.681 (581) **SEMINAR IN ELEMENTARY SUPERVISION (3)** Role of the supervisor; supervisory practices and techniques. Students may concentrate in areas related to their professional interests. Prerequisite: Nine hours of graduate work in education.

26.699 **MASTER'S THESIS IN ELEMENTARY EDUCATION.**

### *SECONDARY EDUCATION COURSES (EDFS)*

#### *Upper Division — Undergraduate and Graduate*

27.358 **TEACHING COMPOSITION IN THE SECONDARY SCHOOL (3)** This course includes: grammar vocabularies, motivational techniques, evaluation, student publications, varieties of purposes for writing, oral composition, laboratory experiences and individual problem analysis. Prerequisite: 27.357 or consent of instructor.

- 27.359 CONTEMPORARY MATERIALS FOR TEACHING ENGLISH IN SECONDARY SCHOOLS (2-3) Application of new materials designed for teaching the language arts in the secondary school including records, films, SRA materials, programmed learning, and television.
- 27.360 (26.365) TEACHING READING IN THE SECONDARY SCHOOL (3) Meets three hours per week for entire semester. General developmental reading skills; identification, diagnosis and remediation of reading problems; comprehension, vocabulary building, word-study skills.
- 27.441 (26.411) THE JUNIOR HIGH SCHOOL (3) Principles, purposes, functions, and characteristics of the Junior High School, with emphasis upon its organization and curriculum. Prerequisite: 27.341.
- 27.443 (26.415) THE MIDDLE SCHOOL (3) Functions and characteristics of the middle school; emphasis on nature of transcendent youth (ages 10-14), curriculum, and organizational patterns. Prerequisite: 26.342, or 26.461, or 27.341, or 28.319.
- 27.445 TEACHING IN THE MIDDLE SCHOOL (3) Instruction in the methods required for teaching in the middle school. An individualized program of instruction, readings, observations and teaching experiences will be planned for each student. Prerequisite: Teacher experience, student teaching, or concurrent with student teaching.

### *Graduate Division*

- 27.5 THE TEACHING PROCESS: SECONDARY EDUCATION (3) Study of recent theories, methods, and findings in research on the teaching process. Analysis of teaching behaviors and exploration of teaching strategies in educational programs for Secondary students. Prerequisite: Teaching experience, and PSYC 70.511 or 27.501, and consent of Department of Education.
- 27.641 (26.565) CURRICULUM DEVELOPMENT IN THE SECONDARY SCHOOL (3) Principles and philosophies of curriculum development; objectives, practices and evaluation trends; the teacher's role. Prerequisite: Consent of instructor.
- 27.643 (26.515) THE ADMINISTRATION OF THE SECONDARY SCHOOL (3) Analysis of principles of school administration, the administrator's roles and responsibilities, human relations and personnel management, public relations, management of the school unit and curriculum. Prerequisite: Three years teaching experience, teacher certification and nine hours of graduate credit.
- 27.679 SEMINAR IN THE TEACHING OF SECONDARY SCHOOL SOCIAL STUDIES (3) A seminar approach to current research, trends, practices, issues, content, materials, and problems in the teaching of contemporary secondary school social studies. Individual reading and research will be pursued on selected topics culminating in a seminar paper. Prerequisite: Consent of instructor, or prior teaching experience in social studies.
- 27.681 (26.577) SEMINAR IN SECONDARY EDUCATION (3) Seminar approach to current practices and trends in secondary curriculum, materials, methods, and organization. A summer paper is required. Prerequisite: Nine hours of graduate work in the field of education.
- 27.683 (26.582) SEMINAR IN SECONDARY SUPERVISION (3) Role of the supervisor; supervisory practices and techniques. Students may concentrate in areas related to their professional interests. Prerequisite: Nine hours of graduate work in the field of education including 28.691.
- 27.699 MASTER'S THESIS IN SECONDARY EDUCATION

### *FOUNDATIONS COURSES (EDFS)*

#### *Upper Division — Undergraduate and Graduate*

- 27.301 (26.303) HISTORY OF EDUCATION (3) Major developments, personalities, and movements in the evolution of education.

- 27.401 (26.410) FOUNDATIONS OF EDUCATION (2-3) Sociological, philosophical, psychological and historical foundations of western education. Perspectives in these areas as they relate to current educational issues and practices. Three semester hours credit upon consent of department chairman. Prerequisite: Student teaching.
- 27.403 (26.404) COMPARATIVE EDUCATION (3) A study of patterns of education in different cultural setting with implications for the student of American education. Emphasis on cross-cultural, political, economic and social aspects of education. Prerequisite: 27.401 or equivalent.
- 27.405 (26.452) PHILOSOPHY OF EDUCATION (3) Philosophic dimensions of the teaching learning process, as discriminated and discussed by major philosophers and educational philosophers.
- 27.407 (26.466) CONTEMPORARY ISSUES IN EDUCATION (3) Seminar approach to current issues in education. Prerequisite: Student teaching or equivalent.

### *Graduate Division*

- 27.501 (26.503) EDUCATIONAL IDEAS IN HISTORICAL PERSPECTIVE (3) Current trends and issues in education as reflecting and influencing the social, economic, and political forces in our cultural heritage.
- 27.5 SCHOOL LAW (3) A study of the legal framework within which the public and non-public schools function. The course will give attention to the legal relationships among federal, state, and local governments; the legal status of school districts, boards of education, and school administrators; the legal status of non-public schools; and the law regarding all facets of the school program, staff, and pupils. Prerequisite: 27.501.

### *ADULT EDUCATION COURSES (EDFS)*

#### *Upper Division — Undergraduate and Graduate*

- 27.485 ADULT EDUCATION (3) Introduction to the historical and philosophical evolution of adult education in the United States in relationship to current aims, types of programs, and issues. Prerequisite: Consent of instructor.
- 27.487 TEACHING THE ADULT LEARNER (3) Teaching-learning activities at various levels of adult education. The needs, motivation, and abilities of the adult learner are stressed. Prerequisite: Consent of instructor.
- 27.489 PRINCIPLES OF READING INSTRUCTION FOR ADULTS (3) Causes of adult reading disabilities, evaluation relevant to reading disability, and the methods and materials employed in the remediation process. Prerequisite: Consent of instructor.

### *ADDITIONAL EDUCATION COURSES (EDPM)*

#### *Upper Division — Undergraduate and Graduate*

- 28.401 (26.463) GUIDANCE IN THE PUBLIC SCHOOL (2-3) Scope and function of a guidance program; the role of the classroom teacher in guidance.
- 28.403 (26.469) EDUCATIONAL TESTS AND MEASUREMENTS (3) Problems in measurement; principles underlying choice of test instruments, survey of test literature; dealing with test data; constellation and interpretation of tests. Not open to those who have had 28.315.
- 28.405 (26.464) RECENT TRENDS IN TEACHING (3) Emerging concepts of teaching and organization for instruction. Prerequisite: Student teaching or equivalent.
- 28.409 (26.483) FIELD STUDIES OF THE CHILD AND HIS COMMUNITY (2) Planning and working with groups of children in approved social agencies or making extensive studies of recreational and non-recreational social agencies. Class discussions and field trips.

- 28.415 EDUCATIONAL STATISTICS (3) Designed as a practical course in statistics for students in education. Emphasis is upon educational applications of descriptive statistics, including central tendency, variability, and association. Prerequisite: MATH 50.204, 50.205, or equivalent.
- 28.417 (26.417) CHILDREN'S LITERATURE (3) Examination of children's books; study of content and form.
- 28.419 (26.418) JUVENILE LITERATURE (3) Examination of juvenile literature apart from textbooks; criteria for this literature; study of content and form.

## *Graduate Division*

- 28.511 (26.511) SUPERVISION OF STUDENT TEACHING (3) An analysis of the roles of the cooperating teacher, college supervisor, and student teacher; current practices, issues, problems, trends and evaluation in laboratory experiences, current research. Prerequisite: Teaching experience.

## *GRADUATE COURSES IN RESEARCH (EDPM)*

- 28.691 (26.595) INTRODUCTION TO RESEARCH IN EDUCATION (3) Research as a method for solving problems. Contributions of research to education. Prerequisite: Undergraduate course in Tests and Measurements, or Elementary Statistics, or consent of instructor.

## *URBAN EDUCATION PROGRAM — PROJECT MISSION*

### *URBAN EDUCATION COURSES (EDPM)*

#### *Upper Division — Undergraduate and Graduate*

- 28.375-376 (486-487) URBAN FIELD EXPERIENCES (2, 2) This course provides first hand experiences relating theory and practice in Urban education and Communication Skills.
- 28.377-378 (488-489) COMMUNICATION SKILLS (1, 2) Speech, semantics, linguistics and sentence structure, a communication model, and psychological aspects of communication.
- 28.381-382 (490-491) METHODS AND MATERIALS IN ELEMENTARY EDUCATION (3, 3) Focus on reading, diagnosis of disabilities, special concerns for the disadvantaged child, remediation techniques. Pedagogy, planning and organizing, presentation, evaluation, use of realia, and teaching the language arts.
- 28.383-384 (492-493) METHODS AND MATERIALS IN SOCIAL STUDIES IN THE SECONDARY SCHOOLS (3, 3) Teaching social studies at the junior high level to disadvantaged youth. In addition, attention is given to such topics as: the curricular organization of social studies, developing social studies skills, instructional planning, social studies materials and resources, and evaluation in the social studies.
- 28.385-386 (494-495) METHODS AND MATERIALS—ENGLISH (3,3) Methods and materials which may be used in directing the language and literary experiences of disadvantaged adolescents. Emphasis is placed on creativity and imagination in developing new approaches to meeting the classroom needs of the disadvantaged. The course gives particular attention to techniques for developing skills in reading and oral communication.
- 28.471-472 (496-497) PROBLEMS IN INSTRUCTIONAL AID AND RESOURCES (1, 1) Opportunities will be provided for the student to become acquainted with all types of instructional materials. As new instructional aids become available, students will examine and evaluate their usefulness in the instructional programs of educationally deprived children. In addition, resource personnel of the Baltimore City Department of Education, the cooperating colleges, and the community will be brought in to discuss their contributions to the improvement of the school programs of the disadvantaged child.
- 28.477-478 (498-499) INTERNSHIP IN TEACHING (6, 6)

## Graduate Division

- 28.571-572 (28.501) *TEACHING THE DISADVANTAGED CHILD* (3) Concern will be given to planning, organizing, and providing of appropriate curriculum experiences for pupils in urban schools. Emphasis will be placed on those methods and materials which are especially appropriate to meeting the needs of children attending schools in disadvantaged communities.
- 28.575 (28.515) *BACKGROUNDS IN URBAN EDUCATION* (3) This course aims to acquaint teachers with sociological factors, family organization and disorganization, and educational deprivation of children living in a crowded and urbanized society. Attention will be given to the special learning styles of these pupils.
- 28.577 (28.571) *SEMINAR IN URBAN EDUCATION* (3) This course is designed as an advanced course for those who have had previous courses in this field and who are engaged in working with children who are educationally disadvantaged. It will focus on anthropological, ecological and psychological research related to the problems of the disadvantaged learner.

## WORKSHOPS

- 28.467 (26.487) *TEAM TEACHING WORKSHOP* (3) Conducted to assist teachers who are actively engaged in team teaching or will be participating as members of a team in the future.

# ENGLISH

## ENGLISH COURSES (ENGL)

### Upper Division — Undergraduate and Graduate

- 30.301 *TOPICS IN WORLD LITERATURE* (2) Consideration of special figures, periods, genres, or conventions. Variation in content from year to year; may be re-elected.
- 30.302 *THE ENGLISH RENAISSANCE* (3) Non-dramatic literature of the Elizabethan period.
- 30.303 (303) *NON-DRAMATIC ENGLISH LITERATURE OF THE SEVENTEENTH CENTURY* (3) Major English non-dramatic literature of the seventeenth century; the approach will be both critical and historical.
- 30.305 *TOPICS IN ENGLISH LITERATURE* (2) Consideration of special figures, periods, genres or conventions. Variation in content from year to year; may be re-elected.
- 30.309 *AMERICAN DRAMA* (3) A study of American drama from the beginning to the present.
- 30.311 *TOPICS IN AMERICAN LITERATURE* (2) Consideration of special figures, periods, genres, or conventions. Variation in content from year to year; may be re-elected.
- 30.312 (312) *WORLD DRAMA I* (3) An historical and critical study of world drama and the cultural forces which produced it from the ancient Greeks to the Neo-Classic period.
- 30.313 (313) *WORLD DRAMA II* (3) An historical and critical study of world drama and the cultural forces which produced it from the Neo-Classic period to the late nineteenth century.
- 30.317 (317) *LITERARY BIOGRAPHY* (3) Critical reading from the literary point of view of important biographies, principally English and American.
- 30.319 (319) *ENGLISH MEDIEVAL AND RENAISSANCE DRAMA* (3) Development of the English Drama from the Middle Ages through the Renaissance, excluding Shakespeare.

- 30.320 (320) ENGLISH DRAMA FROM THE RESTORATION TO SHAW (3) Development of the English Drama in the seventeenth, eighteenth, and nineteenth centuries.
- 30.321 (321) MODERN DRAMA (3) Critical reading of plays of the late nineteenth century and the twentieth century.
- 30.323 THE CONTINENTAL NOVEL (3) A study of major continental novels in translation. Emphasis will be upon related and comparative elements in the novels of writers of France, Germany, Italy and other European countries.
- 30.325 (325) HISTORICAL LINGUISTICS (3) An introduction to language typology and Indo-European philology; historical development of linguistics up to the twentieth century.
- 30.326 (326) MYTH AND LITERATURE (3) The reinterpretation of themes and figures from Greek and Roman mythology.
- 30.327 (327) STRUCTURAL LINGUISTICS (3) A study of the developments in linguistic theory in the twentieth century; major figures, De Saussure, Sapir, Bloomfield, Trubetzkoy, Chomsky.
- 30.335 (335) LITERATURE OF THE ENGLISH ROMANTIC PERIOD (3) Major writers, social and political background, important literary ideas, and criticism.
- 30.337 VICTORIAN PROSE AND POETRY I (3) A study of the works of Tennyson; Arnold; and the Victorian "prophets" — Macauley, Carlyle, Newman, and Mill.
- 30.338 VICTORIAN PROSE AND POETRY II (3) A study of the works of Browning; Ruskin and the Pre-Raphaelites; Pater, Hardy, Housman, and Yeats.
- 30.340 (340) MEDIEVAL LITERATURE (3) English literature during the Middle Ages.
- 30.345 (345) EIGHTEENTH CENTURY ENGLISH PROSE AND POETRY (3) Major eighteenth century English prose and poetry; the approach will be both critical and historical. The novel will not be studied.
- 30.348 MAJOR AMERICAN POETS (3) A study of major American poets with emphasis on the period from Walt Whitman to the present.
- 30.401 THE LITERATURE OF BLACK AMERICA (3) The literature of black expression in the United States with emphasis on the twentieth century. Non-fiction, fiction, and poetry by black writers will be studied.
- 30.405 (405) LITERARY CRITICISM I (3) History and principles of literary criticism. Specified prerequisites and consent of instructor.
- 30.406 (406) LITERARY CRITICISM II (3) Practice in writing literary criticism. Specified prerequisites and consent of instructor.
- 30.407 (407) MODERN POETRY (3) Work of the the important twentieth century poets.
- 30.408 (408) MODERN FICTION TO WORLD WAR II (3) Work of the modern masters of fiction.
- 30.409 (409) MODERN FICTION SINCE WORLD WAR II (3) Works of the significant writers — English, American, and Continental — of the past twenty years. The works of these writers carry on or challenge the tradition established by the modern masters of fiction.
- 30.410 (410) CHAUCER (3) A study of the major poetry.
- 30.412 (412) MILTON (3) A study of the poetry and major prose works.
- 30.415 (415) SHAKESPEARE (COMEDIES) (3) Shakespeare's development as a poet and a dramatist during the period of the comedies and historical plays.
- 30.416 (416) SHAKESPEARE (TRAGEDIES) (3) The great tragedies and the late romantic comedies of Shakespeare.

- 30.422 (422) DEVELOPMENT OF THE ENGLISH NOVEL (3) History and development of the English novel through the eighteenth century.
- 30.423 (423) DEVELOPMENT OF THE ENGLISH NOVEL (3) History and development of the English novel through the nineteenth century.
- 30.425 (425) THE AMERICAN NOVEL FROM HAWTHORNE TO THE PRESENT (3)
- 30.427 LITERATURE OF THE AMERICAN ROMANTIC PERIOD (3) Major writers, social and political background important literary ideas, and criticism.
- 30.430 (430) HISTORY OF THE ENGLISH LANGUAGE (3) Changes and reasons for the changes in grammar, sound, and vocabulary of the language, from Old English to modern times.
- 30.431 (431) STRUCTURE OF THE ENGLISH LANGUAGE (3) A linguistic approach to sounds, forms, syntax, and usage.
- 30.432 (432) OLD ENGLISH LANGUAGE (3) Grammar and syntax of Old English; translation of elementary texts; introduction to Germanic philology.
- 30.433 (433) MIDDLE ENGLISH LANGUAGE (3) Grammar and syntax of Middle English; study of Middle English dialects; reading of selected texts of twelfth to fifteenth centuries.
- 30.494 TRAVEL AND STUDY (3-6) Countries and topics to be selected by the departments and instructors sponsoring the program. For enrollment procedures, write the Chairman of the Department early in the fall of the academic year preceding the summer of intended study.

## GEOGRAPHY

### GEOGRAPHY COURSES (GEOG)

#### *Upper Division — Undergraduate and Graduate*

#### SYSTEMATIC COURSES

- 34.361 ADVANCED ECONOMIC GEOGRAPHY (3) Studies mainly of the secondary and tertiary industries with some emphasis on quantitative analyses of selected economic activities.
- 34.371 (301) ADVANCED PHYSICAL GEOGRAPHY (3) Detailed analysis of characteristics, distribution, and geographical significance of the earth's physical features.
- 34.373 (395) CLIMATOLOGY (3) Character, causes, and distribution of climatic types. Emphasis upon world patterns. Students may be required to do field work.
- 34.381 (331) POLITICAL GEOGRAPHY (3) Effect of political groupings upon man's use of the world, and the influence of the geographic base upon political power.
- 34.391 (413) URBAN GEOGRAPHY (3) Survey of the structure, functions, forms and development of urban units. Emphasis upon the locational features of social, economic, and cultural phenomena. Field work.
- 34.401 GROWTH OF GEOGRAPHIC THOUGHT (3) History, nature, and methodology of geography as a discipline. Analysis of schools of geographic thought; critical evaluation of important geographic works.

#### TECHNIQUE COURSES

- 34.321 (300) INTERPRETATION OF AERIAL PHOTOGRAPHS (3) Reading and interpretation of aerial photographs. The application of the aerial photograph in the fields of geography, geology, and photogrammetry.

- 34.323 (330) CARTOGRAPHY (3) Study in design, construction, and effective application of maps and charts for analysis and publication; practical exercises in the use of cartographic tools, materials, and techniques.
- 34.327 MAP ANALYSIS AND INTERPRETATION (3) Principal types of maps and their uses. Emphasis on understanding map components and the range of physical and cultural phenomena indicated on maps. Includes selected exercises which illustrate the analytical and graphical values of maps.
- 34.341 TECHNIQUES AND MATERIALS FOR GEOGRAPHY TEACHERS (3) A systematic review of geographic concepts in relation to interdisciplinary studies in the physical and social sciences. Examination of the content of geography and problems of presentation.

### REGIONAL COURSES

- 34.421 (230) GEOGRAPHY OF ANGLO-AMERICA (3) Common social, economic, and political interests of the major regions of the United States and Canada. The culture patterns of each region in relation to the natural settings in which they have developed.
- 34.423 (320) HISTORY AND GEOGRAPHY OF MARYLAND (3) Political, social and economic development of the state and its relation to major events in the development of the nation. Natural resources; regional land use; industrial development, particularly in the Baltimore area. Field trips. Field trip expenses about \$15.00, payable when trips are taken.
- 34.431 (318) GEOGRAPHY OF AFRICA (3) Material resources and human geography of Africa. Problems of economic development, nationality and cultural conflicts.
- 34.441 (390) GEOGRAPHY OF AUSTRALIA AND OCEANIA (3) Regional approach in analyzing and interpreting the physical and cultural patterns, natural resources, current problems, and strategic importance of the Pacific world.
- 34.443 (315) GEOGRAPHY OF EAST ASIA (3) Regional studies of the physical and cultural foundations in China, Japan, and Korea. Emphasis upon human and economic resources, and role in world affairs.
- 34.445 (314) GEOGRAPHY OF SOUTH AND SOUTHEAST ASIA (3) Regional studies of the physical and cultural foundations of India, Pakistan, Ceylon, Philippines, and Indonesia. Principal human and economic resources, problems of development, and role in world affairs.
- 34.451 (311) GEOGRAPHY OF EUROPE (3) Regional analysis and appraisal of the human geography and natural resources of Europe. Problems of nationality, economic development, and cultural conflicts.
- 34.453 (319) GEOGRAPHY OF THE USSR (3) Physical and cultural patterns and their bearing on the Soviet Union as a world power. Regional distribution and use of natural and human resources in agriculture and industry. Problems in economic development and production.
- 34.461 (309) GEOGRAPHY OF LATIN AMERICA (3) Distribution and character of the economic activities in various Latin American countries in relation to physical and cultural features. Resources and problems of their development; importance of foreign trade to the economy; relationship with the United States.

### SEMINARS AND SPECIAL COURSES

- 34.481 SEMINAR: SELECTED TOPICS IN GEOGRAPHY (3) Reading and research in selected topics in the field of geography. Seminar topics will be announced.
- 34.483 (487) SEMINAR: THE AMERICAS (3) Individual study in selected problems of the geography of the Americas.
- 34.485 (488) SEMINAR: SOUTH ASIA (3) Reading, research, and discussions on special topics related to India, Pakistan, Ceylon, the Himalayan Kingdoms, and Afghanistan.

34.487 (489) SEMINAR: GEOGRAPHY AND MAN IN THE 20th CENTURY (3) Selected studies on the role of geographic factors in economic and political affairs and in the development of technology. Analysis of contributions of applied geography to the solution of urban and rural problems.

34.493 FIELD GEOGRAPHY (2-6) Practical laboratory experience in techniques in the collection and analysis of data by observations, measurements, mapping, and photographic records. Such techniques are to be applied to selected geographic problems.

### *Graduate Division*

34.521 RESEARCH TECHNIQUES in GEOGRAPHY (3) A course designed to investigate the primary sources of information in geography and to learn the nature of original investigation.

34.571 STUDIES IN PHYSICAL GEOGRAPHY (3) The study of selected geographical topics dealing with physical landscape phenomena, especially in regards to distribution, relationships, and significance to man. Topics will be announced. No more than six semester hours may be applied toward a degree.

34.581 SEMINAR IN POLITICAL GEOGRAPHY (2-6) Special subjects dealing with the geography of international politics, e.g. boundary problems, global strategy, space, sovereignty. Topics to be announced. No more than six semester hours may be applied toward a degree.

34.591 URBAN GEOGRAPHY STUDIES (2-6) Selected topics dealing with the application of geography to planning, retail and industrial location, and trade analysis. Topics to be announced. No more than six semester hours may be applied toward a degree.

34.601 LAND USE STUDIES (2-6) Certain selected problems on urban, rural and rural-urban landscapes which consider and account for geographic differences in land utilization. Topics will be announced. No more than six semester hours may be applied toward a degree.

34.671 SEMINAR IN REGIONAL GEOGRAPHY (2-6) The description, analysis and interpretation of natural and cultural phenomena in certain significant geographic regions. Seminar topics will be announced. No more than six semester hours may be applied toward a degree.

34.697 RESEARCH (2-6) Directed investigation of a pertinent and appropriate geographical problem or problems based upon field and library study, which will contribute to geographical knowledge. Designed for the Master's thesis credit or individual research.

## *HEALTH EDUCATION*

### *HEALTH COURSES (HEAL)*

#### *Upper Division — Undergraduate and Graduate*

38.301 HEALTH EDUCATION CURRICULUM (3) Developing school health programs of instruction based on health needs and problems of school children. Prerequisite: 38.205.

38.401 SEX EDUCATION AND FAMILY LIFE (3) Discusses historical, physiological, sociological, psychological, and religious aspects of sex. Presentations will include guest speakers, panel discussions, and audio-visual aids. Prerequisite: PSYC 70.201; 38.101; BIOL 14.101.

38.402 HEALTH SEMINAR (3) Examination of recent trends in school and public health, reports of student projects, consultation with experts in health field.

## Graduate Division

- 38.515 PROBLEMS IN SCHOOL HEALTH (3) Designed to assist the student in developing an understanding of the current problems in school health programs. The structure, organization, scope, content and practices in the field as revealed through literature and research is studied. Prerequisite: Open only to students with an undergraduate degree in Health and Physical Education or consent of instructor.

# HISTORY

## HISTORY COURSES (HIST)

### Upper Division — Undergraduate and Graduate

- 40.309 (309) HISTORY OF EAST ASIA UNTIL THE SEVENTEENTH CENTURY (3) The historical development of the civilizations of China, Japan, and Korea prior to the intrusion by the Western powers, with special emphasis on the evolution of the Confucian culture of China. Prerequisite: 40.110 or consent of instructor.
- 40.310 (310) HISTORY OF EAST ASIA SINCE 1600 (3) A study of the historical development of China, Japan and Korea in the past three centuries focusing on their respective responses to the Western World. Prerequisites: 40.110, or 40.309 or consent of instructor.
- 40.311 (367) HISTORY OF SOUTH ASIA TO 1750 (3) A survey of the history and culture of the Indian subcontinent from prehistoric times to the beginning of the British Raj. Prerequisite: Six credits in history or consent of instructor.
- 40.312 (368) HISTORY OF SOUTH ASIA SINCE 1750 (3) The history of the Indian subcontinent since 1750, stressing the rise of British power, the colonial experience, the development of nationalist movements, and the problems of statehood in present-day India, Pakistan, Ceylon and Nepal. Prerequisite: Six credits in history or consent of instructor.
- 40.313 (313) HISTORY OF MODERN SOUTHEAST ASIA (3) The development of Burma, Thailand, Malaysia, Indonesia, Cambodia, Vietnam and the Philippines since 1500, with emphasis on the colonial experience and development of modern nationhood. Prerequisite: Six credits in history or consent of instructor.
- 40.315 (458) A HISTORY OF CHINA TO 1644 (3) The beginnings of Chinese civilization and institutions, the introduction of Buddhism, the rise of Taoism and Confucianism. The evolution of Chinese art and literature, the invasions and internal dissent. Prerequisite: 40.263 and 40.264.
- 40.316 (459) CHINESE HISTORY SINCE 1644 (3) The rise of the Manchu dynasty, western penetration of China, the Opium Wars, Taiping Rebellion, reform and revolution. The succession of the Kuomintang and the rise of Chinese Communism. Prerequisite: 40.263 and 40.264.
- 40.317 (317) HISTORY OF MODERN JAPAN (3) The political, economic and cultural aspects of Japan's rapid modernization from the mid-nineteenth century and her subsequent expansion, defeat and recovery. Prerequisite: Nine hours of history to include either 40.110 or 40.310 or consent of instructor.
- 40.321 (321) HISTORY OF MEXICO (3) The evolution of modern Mexican civilization. Consideration of the cultural, social, religious, economic and political development from pre-Columbian times to the present. Prerequisite: 40.121, 40.122 or 40.145, 40.146 or 40.263, 40.264 or consent of instructor.
- 40.327 (327) SOCIAL AND INTELLECTUAL HISTORY OF LATIN AMERICA (3) A study of the impact of ideas on the organization of Latin American society in different epochs. Prerequisite: 40.121, 40.122 or consent of instructor.

- 40.333 (430) SUB-SAHARAN AFRICA (3) Selected aspects of the development of African cultures, emphasizing changing assumptions and interpretations and the contributions of other disciplines to the reconstruction of Africa's past. Prerequisite: 40.145, 40.146, 40.263, 40.264 or consent of instructor.
- 40.345 (345) THE AMERICAN COLONIES: 1492-1763 (3) Founding and the political, economic, and social development of the American colonies. Prerequisite: 40.145, 40.263 or consent of instructor.
- 40.346 (340) THE AMERICAN REVOLUTIONARY PERIOD: 1763-1789 (3) From the end of the Seven Years' War to the ratification of the Constitution. Prerequisite: 40.145 or 40.263 or consent of instructor.
- 40.347 (346) THE EARLY NATIONAL PERIOD (3) The United States from the Constitutional Convention to the Election of 1820. The Federalist Decade and the Jeffersonian Era. Prerequisite: 40.145 and 40.146.
- 40.348 (347) THE JACKSONIAN ERA (3) The United States from 1815 to 1845; political, social and economic currents of the period. Prerequisite: 40.145.
- 40.349 (348) SECTIONALISM AND THE CIVIL WAR (3) Sectionalism with emphasis upon the Old South; the coming of the war; and the political and economic issues of the Civil War years. Prerequisite: 40.145 and 40.146.
- 40.350 (349) RECONSTRUCTION AND THE NEW SOUTH (3) Political, economic and social developments following the Civil War. Prerequisite: 40.145 and 40.146.
- 40.351 (337) THE GILDED AGE (3) History of the United States from 1877 to 1892 with emphasis on the political, economic and social questions of the era. Prerequisite: 40.145 and 40.146.
- 40.352 (338) THE POPULIST-PROGRESSIVE ERA (3) History of the United States from 1892-1920 with emphasis on the political, economic and social questions of the era. Prerequisite: 40.145 and 40.146.
- 40.359, 360 (350, 351) RECENT AMERICAN HISTORY (3, 3) History of the United States from 1920 to the present. First semester to 1945; second semester since 1945. Prerequisite: 40.146.
- 40.361 (413) AMERICAN INTELLECTUAL HISTORY TO 1859 (3) Main issues in American thought from the colonial period to the publication of Darwin's *The Origin of Species*. Emphasis on religious thought, political theory and ideas in literature. Prerequisite: Two courses from philosophy, political theory, American literature or American history.
- 40.362 (414) AMERICAN INTELLECTUAL HISTORY SINCE 1859 (3) Main issues in American thought from the publication of Darwin's *The Origin of Species* to contemporary times. Emphasis on religious thought, social theory, ideas in literature and philosophy. Prerequisite: Two courses from philosophy, political theory, American literature or American history.
- 40.363, 364 (415, 416) SOCIAL HISTORY OF THE UNITED STATES (3, 3) History of American life from the 17th century to the present, focusing on problems relating to social structure, popular culture, religious and education institutions. First semester to 1865; second semester from 1865 to the present. Prerequisite: First semester 40.145; second semester 40.146.
- 40.365, 366 (333, 334) ECONOMIC HISTORY OF THE UNITED STATES (3, 3) American economic development from the colonial period to the present, with an emphasis upon trends and problems of contemporary importance. Colonial times to 1865; 1865 to present. Prerequisite: 40.145 and 40.146.
- 40.367, 368 (402, 403) CONSTITUTIONAL HISTORY OF THE UNITED STATES (3, 3) Development of American constitutionalism in theory and practice. Prerequisite: 40.145 and 40.146.
- 40.369 (451) DIPLOMATIC HISTORY OF THE UNITED STATES TO 1900 (3) Evolution of the American national interest in foreign relations with Europe, Latin America, and the Far East from colonial times to 1900. Emphasis upon the changing character and role of objectives, policies, commitments and forces. Prerequisite: 40.145 and 40.146.

- 40.370 (452) DIPLOMATIC HISTORY OF THE UNITED STATES SINCE 1900 (3) Continuation of 40.369 to the present with added interest in the emergence of the United States as a major world power. The role of the United States in modern warfare, world wide economic and financial affairs, overseas expansion, the diplomatic impact of conflict in ideologies, and current international crisis. Prerequisite: 40.145 and 40.146.
- 40.371, 372 (371, 372) UNITED STATES RELIGIOUS HISTORY (3,3) The interactions between religion, society, reform and education in the American past. Emphasis on how religious ideals have shaped American institutions and character. First semester to 1865; second semester since 1865. Prerequisite: 40.145, 40.146 or consent of instructor.
- 40.375 (405) THE CITY IN AMERICAN HISTORY (3) The development of the city and its impact on American social, cultural, intellectual, political and economic life. Prerequisite: 30.145, 40.146 or two of the following: 34.391, 80.344, 68.305 or consent of instructor.
- 40.377 (407) THE IMMIGRANT IN AMERICAN HISTORY (3) History of the immigrant experience in America from the colonial period to the present. Emphasis on migration patterns, receptivity of native society, assimilation and acculturation processes. Prerequisite: 40.145 and 40.146.
- 40.381 (417) HISTORY OF BLACK AMERICANS (3) History of Americans of African ancestry from their West African background to the present. Emphasis on black Americans' thought, activities, organizations and their role in developing America. Prerequisite: 40.145 and 40.146.
- 40.391 (418) HISTORY OF CANADA (3) Canadian history with emphasis on the period since 1867. Particular attention will be given to the problems of cultural dualism and confederation. Prerequisite: 40.145, 40.146, or 40.263, 40.264.
- 40.397 (320) HISTORY AND GEOGRAPHY OF MARYLAND (3) Political, social and economic development of the state and its relations to major events in the development of the nation. Natural resources; regional land use; industrial development, particularly in the Baltimore area. Field trips. Field trip expenses about \$15.00, payable when trips are taken. Prerequisite: 40.145, 40.146 and GEOG 34.101, 34.102.
- 40.400 (420) SEMINAR IN AMERICAN HISTORY (3) Reading and research dealing with a phase of history to be selected by the instructor; considerable attention to sources and historiography. Prerequisite: 40.145, 40.146, 40.263, 40.264 and 40.299 and consent of instructor.
- 40.401, 402 (357, 358) MEDIEVAL CIVILIZATION (3,3) The principal currents of political, social, intellectual and artistic developments in medieval Europe. The early middle ages to about 1050; the high middle ages – 1050 to 1350. Prerequisite: 40.263.
- 40.403 (362) RENAISSANCE AND REFORMATION (3) Social and intellectual changes in Western Europe between 1350 and 1650 which mark the transition from the medieval to the modern world. Prerequisite: 40.263 and 40.264.
- 40.405 (363) EUROPE 1648-1815 (3) European state system and expansion of European civilization; intellectual growth and class relationships culminating in the French Revolution and Napoleon. Prerequisite: 40.263 and 40.264.
- 40.406 (364) EUROPE 1815-1914 (3) Major economic, political, social and intellectual currents of the period. The effects of the industrial revolution, the development of nationalism and imperialism, and the origins of the first world war. Prerequisite: 40.263 and 40.264.
- 40.407 (463) EUROPE 1914-1939 (3) Events leading to World War I, the conflict, and the peace which followed. The rise of conflicting political ideologies and the road to World War II. Prerequisite: 40.263 and 40.264.
- 40.408 (464) EUROPE SINCE 1939 (3) World War II – diplomacy, strategy, and results. The economic, social and political recovery of post-war Europe and the development of new alliance structures. Prerequisite: 40.263 and 40.264.
- 40.413 (425) EUROPEAN MILITARY HISTORY SINCE 1815 (3) The major wars and inter-war military developments of post-Napoleonic Europe seen in the context of diplomatic, economic and technological history. Prerequisite: 40.264 or consent of instructor.

- 40.415 (426) DIPLOMATIC HISTORY OF EUROPE 1815-1939 (3) A survey with emphasis upon specific diplomatic crises. Prerequisite: 40.264.
- 40.417, 418 (328, 329) ECONOMIC HISTORY OF EUROPE (3, 3) The modern economic institutions of Western Europe. The commercial revolution; industrial revolution; the age of mass production and technology. To 1750; since 1750. Prerequisite: 40.263 and 40.264.
- 40.421 (470) BRITAIN IN THE TWENTIETH CENTURY (3) The role of Britain, the Commonwealth and the Empire. Social reform and World War I. Efforts to recover economic equilibrium. World War II. Decline of the Empire. Britain and Socialism. Prerequisite: 40.263 and 40.264.
- 40.431 (428) FRANCE: 1763-1871 (3) Old Regime and the impact of successive revolutions upon French society. Emphasis upon the role of France in the growth of European liberalism and nationalism. Prerequisite: 40.263 and 40.264.
- 40.441 (460) MODERN GERMANY, 1871-1945 (3) Brief topical analysis of the nineteenth century background. Concentration on the Bismarckian Empire, Weimar Republic and the Third Reich, emphasizing the interrelationships between internal developments and Germany's role in Europe and the world. Prerequisite: 40.264.
- 40.451 (423) RUSSIA TO 1917 (3) From Kiev Rus to the fall of the Romanov dynasty. Prerequisite: 40.263 and 40.264 or consent of instructor.
- 40.452 (424) SOVIET UNION SINCE 1917 (3) From the fall of the Tsarist regime and the Bolshevik Revolution to the present. Prerequisite: 40.263 and 40.264 or consent of instructor.
- 40.461 (419) SEMINAR IN EUROPEAN HISTORY (3) Reading and research dealing with a phase of history to be selected by the instructor; considerable attention to sources and historiography. Prerequisite: 40.145, 40.146, 40.263, 40.264, 40.299 and consent of instructor.
- 40.463, 464 (433, 434) INTELLECTUAL HISTORY OF WESTERN CIVILIZATION (3, 3) Emphasis on the history of metaphysical, religious and scientific thought in the context of broad historical trends; attention also to political, economic and aesthetic philosophies. First semester, early Medieval to 1700; second semester, Enlightenment, 19th and 20th centuries. Prerequisite: 40.263 for first semester; 40.264 for second semester; or consent of instructor.
- 40.477 (435) MODERN WESTERN COLONIALISM (3) Expansion of Western culture and institutions with particular reference to their effects on the peoples of Asia and Africa in the period since 1870. Prerequisite: 40.263 and 40.264.
- 40.479 (437) A HISTORY OF DIPLOMACY (3) Evolution from its origins to the present with emphasis on the modern period. Historic changes which shifting ideologies and new technologies have wrought in the role of the diplomat. Prerequisite: 40.263 and 40.264.
- 40.491 (214, 215, 216, 217) BIOGRAPHICAL STUDIES IN HISTORY (3) A study of selected historical figures who have shaped or reflected the past. Figures to be selected by instructor. Prerequisite: Six hours in history.
- 40.494 (490) TRAVEL & STUDY (3-6) Countries and topics to be selected by the Departments and instructors sponsoring the program. For complete information, write the Chairman of the Department early in the fall of academic year preceding the summer of intended study. Prerequisite: Upper division status and consent of instructor.
- 40.495 (495) SEMINAR IN COMPARATIVE STUDIES (3) Reading and research in history or related disciplines approached from a viewpoint that is primarily historical and dealing with specific topics, problems, or developments selected by the instructor(s). Prerequisite: 40.299 and four additional courses in history or two courses in history and a research methods course and two additional courses in the related discipline and consent of instructor.
- 40.497 (485) DIRECTED READING (2-4) Independent reading in history or related disciplines approached from a viewpoint that is primarily historical and dealing with specific periods, topics, problems or comparative developments selected by the student in consultation with the instructor(s). Prerequisite: 15 hours in history or 9 hours in history and 6 hours in the related discipline and a minimum average of 3.00 in history and the related discipline and consent of Department Chairman.

## *Graduate Division*

- 40.599 (599) SEMINAR IN UNITED STATES HISTORY TO 1865 (3) Research dealing with a phase of United States history to 1865 to be selected by the instructor. Prerequisite: Consent of instructor.
- 40.600 (600) SEMINAR IN UNITED STATES HISTORY SINCE 1865 (3) Research dealing with a phase of United States history since 1865 to be selected by the instructor. Prerequisite: Consent of instructor.
- 40.661 (661) SEMINAR IN 19TH CENTURY EUROPEAN HISTORY (3) Research dealing with a phase of nineteenth century European history to be selected by the instructor. Prerequisite: Consent of instructor.
- 40.662 (662) SEMINAR IN THE 20TH CENTURY EUROPEAN HISTORY (3) Research dealing with a phase of twentieth century European history to be selected by the instructor. Prerequisite: Consent of instructor.
- 40.697 (697) DIRECTED READING IN HISTORY (2-4) Independent reading in areas of history selected by the instructor and the student. Prerequisite: Consent of instructor.

# MATHEMATICS

## *MATHEMATICS COURSES (MATH)*

### *Upper Division — Undergraduate and Graduate*

- 50.331 PROBABILITY (3) Probability in sample spaces, discrete and continuous random variables, distribution theory, Tchebyshev's theorem, central limit theorem, expected values, and moments. Prerequisite: 50.272 or 50.274. May be taken concurrently.
- 50.332 MATHEMATICAL STATISTICS (3) Sample theory and distributions, point estimation, confidence intervals, tests of hypotheses, regression, correlation, and analysis of variance. Prerequisite: 50.331.
- 50.338 INTRODUCTION TO COMPUTER SCIENCE (3) Selected topics from the following: history and background of computing; computer characteristics, organization and logic, the concept and properties of algorithms, addressing schemes, numerical and non-numerical applications, and a survey of computer language and systems. Prerequisite: 50.337 and the consent of instructor.
- 50.357 COLLEGE GEOMETRY (3) Advanced Euclidean geometry including loci, pedal triangles, harmonic ranges, quadrangles, cyclic quadrilaterals, poles and polars, and inversion. Prerequisite: 50.261, and 50.271 or 50.273.
- 50.361 ALGEBRAIC STRUCTURES (3) Groups, rings, fields, integral domains, polynomial rings, Peano axioms, and development of the real number systems. Prerequisite: 50.261.
- 50.365 LINEAR ALGEBRA (3) Matrices, vector spaces, determinants, systems of linear equations, linear transformations, characteristic vectors and values, canonical forms. Prerequisite: 50.361.
- 50.367 THEORY OF NUMBERS (3) Theory of prime numbers, the division algorithm, the Fundamental Theorem of Arithmetic, polynomials, congruences, number theoretic functions. Prerequisite: 50.261.
- 50.371 CALCULUS III (3) Indeterminate forms, infinite series, vector calculus of functions of one variable, differential calculus of functions of several variables. Prerequisite: 50.272.

- 50.372 CALCULUS IV (3) Vector differential calculus, multiple integration, vector integral calculus. Selected topics from among Fourier series, Laplace transforms, special functions, and differential equations. Prerequisite: 50.371.
- 50.373 CALCULUS III (4) Differential and integral calculus of functions of several variables; differential and integral calculus of vector valued functions, including the divergence and Stoke's theorems; selected topics from among Fourier series, Laplace transform, special functions and differential equations. Prerequisite: 50.274.
- 50.421 MATHEMATICS EDUCATION FOR IN-SERVICE ELEMENTARY SCHOOL TEACHERS (1-4) Selected topics in the teaching of elementary school mathematics. (Open only to in-service personnel in elementary education who have not had 50.204 or 50.205 or equivalent within the last 5 years.) Graduate credit only with prior approval of advisor.
- 50.427 READINGS IN MATHEMATICS EDUCATION FOR THE ELEMENTARY SCHOOL TEACHER (1-3) Directed study for the teacher of elementary school mathematics. Prerequisite: 50.321 or 50.323 and consent of instructor.
- 50.429 READINGS IN MATHEMATICS EDUCATION FOR THE SECONDARY SCHOOL TEACHER (TBA) Directed study for the teacher of secondary school mathematics. Prerequisite: Consent of instructor.
- 50.435 NUMERICAL ANALYSIS I (3) Error analysis, interpolations, numerical solution of algebraic equations and systems of algebraic equations, numerical integration and differentiation. Illustration and use of computer languages. Prerequisite: 50.371 or 50.274.
- 50.436 NUMERICAL ANALYSIS II (3) Continuation of 50.435. Prerequisite: 50.435.
- 50.451 MATH RESEARCH IN GRAPH THEORY (3) A course designed to give an advanced mathematics major the opportunity to do independent, significant research in a field of mathematics through Graph Theory. (Topics will include Hamiltonian and Eulerian graphs, coloring graphs, planar and non-planar graphs, connectivity problems and isomorphic graphs.) Prerequisites: Consent of instructor.
- 50.457 DIFFERENTIAL GEOMETRY I (3) Curvatures of curves and surfaces in  $E_3$ , geodesics, invariants, mappings and special surfaces. Prerequisite: 50.371 or 50.373.
- 50.458 DIFFERENTIAL GEOMETRY II (3) Continuation of 50.457. Prerequisite: 50.457.
- 50.461 ADVANCED TOPICS IN ALGEBRA (3) Extension of the concepts of 50.361. Prerequisite: 50.361.
- 50.471 DIFFERENTIAL EQUATIONS (3) Solutions of ordinary and partial differential equations. Prerequisite: 50.371 or 50.274.
- 50.473 ADVANCED CALCULUS I (3) Euclidean spaces, norms, compact and connected sets in metric spaces. Heine-Borel Theorem, Weierstrass Theorem, numerical sequences, and series, continuity and uniform continuity. Prerequisite: 50.371 or 50.261 and 50.274.
- 50.474 ADVANCED CALCULUS II (3) Differentiation, mean value theorem, differentiation of vector-valued functions, Riemann-Stieltjes Integral, sequences and series of functions, Stone-Weierstrass Theorem, and functions of several variables. Prerequisite: 50.473.
- 50.477 TOPOLOGY (3) General topological spaces, limits, continuity, separation axioms, Hausdorff regular and compact spaces, distance functions, and metric spaces. Prerequisite: 50.473.
- 50.491 READINGS IN MATHEMATICS (TBA) Independent reading in selected areas of mathematics. Prerequisite: Consent of instructor.

## Graduate Division

- 50.521 SEMINAR IN TEACHING ARITHMETIC (3) Analysis of new topics, techniques, and materials in arithmetic instruction. Prerequisite: 50.321 or 50.323.

# MODERN LANGUAGES

## FRENCH COURSES (FREN)

### *Upper Division — Undergraduate and Graduate*

- 32.325 (307) MASTERPIECES OF FRENCH LITERATURE IN TRANSLATION (3) An intensive study of English translations of a limited selection of works chosen from the acknowledged masterpieces of French literature, presented in chronological order (not open to French majors). Prerequisite: ENGL 30.102.
- 32.395 FRENCH PHONETICS (2) The pronunciation of contemporary French; drill in pronunciation. Prerequisite: 32.201, 32.202.
- 32.411 FRENCH LITERATURE OF THE MIDDLE AGES (3) Selections from the major works of the period from the twelfth through the fifteenth centuries in Modern French Versions. Prerequisite: 32.321-322. Conducted in French.
- 32.415 (405) FRENCH LITERATURE OF THE SIXTEENTH CENTURY (3) Principle works of the major writers of the sixteenth century with special attention to Rabelais, the Pleiade, and Montaigne. Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.
- 32.421 (407) FRENCH LITERATURE OF THE SEVENTEENTH CENTURY (3) Principal works of the major writers in poetry, drama, philosophy, criticism, and the novel, to about 1660. Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.
- 32.422 (408) FRENCH LITERATURE OF THE SEVENTEENTH CENTURY (3) Continuation of 32.421 from 1660 to 1700. Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.
- 32.425 (409) FRENCH LITERATURE OF THE EIGHTEENTH CENTURY (3) Principal works of the major writers with the concurrent literary and philosophical trends. Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.
- 32.431 (411) FRENCH LITERATURE OF THE NINETEENTH CENTURY (3) The rise, flowering, and decline of Romanticism, with the contemporary writers outside the movement. Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.
- 32.432 (412) FRENCH LITERATURE OF THE NINETEENTH CENTURY (3) The major literary figures and doctrines of the latter part of the nineteenth century. Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.
- 32.441 (413) FRENCH LITERATURE OF THE TWENTIETH CENTURY (3) From Gide, Proust, Valéry, Peguy, and Claudel to the Second World War. Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.
- 32.442 (414) FRENCH LITERATURE OF THE TWENTIETH CENTURY (3) Sartre, Camus, Anouilh, and other present-day writers. Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.
- 32.451-452 (425-426) FRENCH POETRY (3,3) The development of French poetry from the Middle Ages to the present day. Conducted in French. Prerequisite: 32.321, 32.322.
- 32.461-462 (421-422) FRENCH DRAMA (3,3) The development of French Drama from the Middle Ages to the present day. Conducted in French. Prerequisite: 32.321, 32.322.
- 32.471 THE FRENCH NOVEL (3) From the seventeenth century to Flaubert (theory of the novel as a genre, the novel from Préciosité to "la Princesse de Clèves" in the seventeenth century, the picaresque and philosophical novel in the eighteenth century. Balzac and Stendhal in the nineteenth century). Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.
- 32.472 THE FRENCH NOVEL (3) From Flaubert to the "Nouveau Roman" (évolution of the Novel from Flaubert to Proust, Gide, Malraux, Giono and the theories of the "Nouveau Roman," Robbe-Grillet and Butor.) Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.

- 32.481 (427) THE CONTE (3) Emphasis on the realists and some of the more recent authors. Prerequisite: 32.321, 32.322 or equivalent. Conducted in French.
- 32.491 (451) DIRECTED READING IN FRENCH LITERATURE (3) Reserved for superior students under the guidance of a departmental advisor. Prerequisite: At least three hours of literature study at the 400 level. Conducted in French.
- 32.492 (452) DIRECTED READING IN FRENCH (3) Similar to 32.491 with concentration on a different subject matter. Prerequisite: At least three hours of literature study at the 400 level. Conducted in French.

## Graduate Division

- 32.501 (495) INTRINSIC PROBLEMS IN FRENCH LITERATURE (3) Consideration of the literary work "in itself": matters of literary language and world-view; the possibilities and limitations of this sort of criticism; problems in bibliography. Prerequisite: 32.491 and consent of instructor. Conducted in French.
- 32.502 (496) EXTRINSIC PROBLEMS IN FRENCH LITERATURE (3) Consideration of the literary work as influenced by its cultural environment; the possibilities and limitations of this sort of criticism; problems in bibliography. Prerequisite: 32.491 and consent of instructor. Conducted in French.
- 32.541 PERSPECTIVES IN 20TH CENTURY FRENCH LITERATURE (3) Critical study of a major twentieth century writer. Prerequisite: Consent of Instructor.
- 32.555-556 FRENCH REALISM AND NATURALISM (3,3) The main works of Balzac, Stendhal, Flaubert, Les Goncourt, Zola, Maupassant and Daudet with shifting emphasis from year to year. Prerequisite: Consent of instructor. Conducted in French.

## GERMAN COURSES (GERM)

### Upper Division — Undergraduate and Graduate

- 36.325 (307) MASTERPIECES OF GERMAN LITERATURE IN TRANSLATION (3) An intensive study English translations of a number of acknowledged masterpieces of German literature. Not open to German majors. Prerequisite: ENGL 30.102.
- 36.411 (407) MEDIEVAL GERMAN LITERATURE (3) Special emphasis on the flowering period of epic and lyric poetry. Readings are in New High German translation. Prerequisite: 36.321-322 or equivalent. Conducted in German.
- 36.421 (409) HUMANISM, REFORMATION AND THE BAROQUE (3) A survey of the philosophy and literature from the end of the Middle Ages to 1750. Prerequisite: 36.321-322 or equivalent. Conducted in German.
- 36.425 (411) PRE-CLASSICISM (3) German literature from the end of the Baroque to the beginnings of Classicism. Focus on the *Aufklärung* and *Sturm und Drang*. Prerequisite: 36.321-322 or equivalent. Conducted in German.
- 36.427-428 (413-414) CLASSICISM (3,3) First semester: the beginnings of German classicism: Goethe, Schiller, Lessing; second semester: the later works of Goethe and Schiller. Prerequisite: 36.321-322 or equivalent. Conducted in German.
- 36.431 (415) ROMANTICISM (3) German literature during the Romantic era (1790-1830). Hölderlin, Novalis, Tieck, Brentano, Grillparzer. Prerequisite: 36.321-322 or equivalent. Conducted in German.
- 36.432 (417) REALISM (3) A study of German literary realism from the *Vormärz* through Poetic Realism. Heine, Büchner, Hebbel, Wagner, Keller, Fontane. Prerequisite: 36.321-322 or equivalent. Conducted in German.

- 36.441 (423) MODERN GERMAN LITERATURE (3) The modern masters: Kafka, Mann, Hesse, Rilke, Brecht. Prerequisite: 36.321-322 or equivalent. Conducted in German.
- 36.442 (424) GERMAN LITERATURE SINCE 1945 (3) Themes and movements since World War II. Poetry: Eich, Enzensberger, Celan, Bachmann; prose fiction: Böll, Grass; drama: Borchert, Dürrenmatt, Frisch. Prerequisite: 36.321-322 or equivalent. Conducted in German.
- 36.451 (425) STUDIES IN THE GERMAN LYRIC (3) Focus on a particular period, movement or author, to be determined after consultation with majors. Prerequisite: 36.321-322 or equivalent. Conducted in German.
- 36.461 GERMAN DRAMA OF THE 19th AND 20th CENTURIES (3) The development of modern German drama in the successive literary movements, beginning with Kleist. Prerequisite: 36.321-322 or equivalent. Conducted in German.
- 36.465 (441) GOETHE'S *FAUST* (3) A study of the background, themes and structures of this masterpiece. Prerequisite: 36.321-322 or equivalent. Conducted in German.
- 36.471 (429) THE GERMAN NOVEL (3) A study of the origins and development of the genre in German literature. Prerequisite: 36.321-322 or equivalent. Conducted in German.
- 36.481 THE GERMAN NOVELLE (3) The theory and development of the *Novelle* in German literature from Goethe to the present. Prerequisite: 36.321-322 or equivalent. Conducted in German.
- 36.491-492 (451-452) DIRECTED READINGS IN GERMAN LITERATURE (3,3) Reserved for superior students under the guidance of a departmental advisor. Content related to student's previous program. Prerequisite: At least three hours of study at the 400 level.

## SPANISH COURSES (SPAN)

### *Upper Division — Undergraduate and Graduate*

- 82.417-418 (405) THE GOLDEN AGE IN SPANISH LITERATURE (3,3) Principal attention to Cervantes, Tirso de Molina, Lope de Vega, and Ruiz de Alarcon; Gongora and his role. Prerequisite: 82.321-322 or equivalent. Conducted in Spanish.
- 82.431 (411) NINETEENTH CENTURY SPANISH LITERATURE (3) The main literary movements of the century: neo-classicism, romanticism, realism, naturalism, and special emphasis on "costumbrismo." Prerequisite: 82.321-322 or equivalent. Conducted in Spanish.
- 82.435 NINETEENTH CENTURY SPANISH AMERICAN LITERATURE (3) Principal works of the major writers to about 1860. Prerequisite: 82.321, 82.322 or equivalent. Conducted in Spanish.
- 82.436 NINETEENTH CENTURY SPANISH AMERICAN LITERATURE (3) Principal works of the major writers from 1860 to 1900. Prerequisite: 82.321, 82.322 or equivalent. Conducted in Spanish.
- 82.441 (413) TWENTIETH CENTURY SPANISH LITERATURE (3) Special attention to the literary movement called "The Generation of '98." Prerequisite: 82.321, 82.322 or equivalent. Conducted in Spanish.
- 82.442 (414) TWENTIETH CENTURY SPANISH LITERATURE (3) The writers of the last thirty years. Prerequisite: 82.321, 82.322 or equivalent. Conducted in Spanish.
- 82.443 TWENTIETH CENTURY SPANISH AMERICAN LITERATURE (3) Modernism to the Contemporary Period. Prerequisite: 82.321, 82.322 or equivalent. Conducted in Spanish.
- 82.444 TWENTIETH CENTURY SPANISH AMERICAN LITERATURE (3) The Contemporary Period. Prerequisite: 82.321, 82.322 or equivalent. Conducted in Spanish.
- 82.451 (425) SPANISH POETRY (3) Special emphasis on Gustavo Adolfo Becquer, Ruben Dario Antonio Machado. Prerequisite: 82.321, 82.322 or equivalent. Conducted in Spanish.
- 82.452 (426) SPANISH POETRY (3) Emphasis on the poets of the generation of 1927: Pablo Neruda, and Vincente Aleixandre. Prerequisite: 82.321, 82.322 or equivalent. Conducted in Spanish.

- 82.461 (421) SPANISH DRAMA (3) Nineteenth and early twentieth century. Prerequisite: 82.321, 82.322 or equivalent. Conducted in Spanish.
- 82.462 (442) SPANISH DRAMA (3) Contemporary playwrights such as Casona, Usigli, and Vallejo. Prerequisite: 82.321, 82.322 or equivalent. Conducted in Spanish.
- 82.471 (423) SPANISH NOVEL (3) Emphasis will be given to Benito Perez Galdos and Pio Baroja. Prerequisite: 82.321, 82.322 or equivalent. Conducted in Spanish.
- 82.472 (424) SPANISH NOVEL (3) Emphasis on contemporary writers including: Camilo Jose Cela, Miguel Angel Asturias, Ramon Sender, Juan Goytisolo. Prerequisite: 82.321, 82.322 or equivalent. Conducted in Spanish.
- 82.481 (427) SPANISH SHORT STORY (3) The short story in Spain and Spanish America with emphasis on twentieth century authors. Prerequisite: 82.321, 82.322 or equivalent. Conducted in Spanish.
- 82.491 (451) DIRECTED READING IN SPANISH LITERATURE (3) Reserved for superior students under the guidance of departmental adviser. Prerequisite: At least three hours of literature study at the 400 level. Conducted in Spanish.
- 82.492 (452) DIRECTED READING IN SPANISH (3) Similar to 82.491 with concentration on a different subject matter. Prerequisite: At least three hours of literature study at the 400 level. Conducted in Spanish.

### *Graduate Division*

- 82.501 (495) INTRINSIC PROBLEMS IN SPANISH LITERATURE (3) Consideration of the literary work "in itself": matters of literary language and world-view; the possibilities and limitations of this sort of criticism; problems in bibliography. Prerequisite: 82.491 and consent of instructor. Conducted in Spanish.
- 82.502 (496) EXTRINSIC PROBLEMS IN SPANISH LITERATURE (3) Consideration of the literary work as influenced by its cultural environment; the possibilities and limitations of this sort of criticism; problems in bibliography. Prerequisite: 491 and consent of instructor. Conducted in Spanish.
- 82.500 SEMINAR IN UNAMUNO (3) Life's tragedy: Conflict between reason and faith as shown in his novels, theatre, essays, and poetry. Conducted in Spanish. Prerequisite: Eighteen hours credit of Spanish beyond intermediate or consent of instructor.

## MUSIC

### *MUSIC COURSES (MUSC)*

#### *Upper Division — Undergraduate and Graduate*

- 54.311 ACCOMPANYING (3) Study of vocal and instrumental accompanying with emphasis upon sight reading, transposition, and acquaintance with vocal and instrumental literature. Prerequisite: Consent of instructor.
- 54.413 SYMPHONIC LITERATURE (3) Orchestral music from the baroque to the present. The concerto, symphony, overture and other orchestral forms are examined. Prerequisite: Consent of Department Chairman.
- 54.427-428 JAZZ ARRANGING (3,3) Study and practice of arranging of standard material for jazz Ensembles.

## 68 / Towson State College

- 54.429-430 JAZZ IMPROVISATION (3,3) Study and practice of improvising in various jazz styles. Prerequisite: 54.231-232 or consent of instructor.
- 54.335 (324) CHORAL AND INSTRUMENTAL ARRANGING (3) Composition and arranging techniques for voices and/or instruments. Prerequisite: 54.233, equivalent, or consent of instructor.
- 54.403 (405) MUSIC OF THE CLASSICAL PERIOD (3) Styles, forms and techniques of the period from 1750-1820. Particular emphasis is placed on instrumental categories of the string quartet, sonata, symphony and concerto as illustrated in the works of Haydn, Mozart and Beethoven. Attention is given to operatic and sacred compositions of the same masters. Prerequisite: Consent of department chairman.
- 54.404 (406) MUSIC OF THE ROMANTIC PERIOD (3) Musical styles, forms and techniques in the nineteenth century with special attention to the intellectual foundations of the Romantic movement. Prerequisite: Consent of department chairman.
- 54.405 (407) CONTEMPORARY MUSIC (3) Styles, forms and musical techniques since 1900. Prerequisite: Consent of department chairman.
- 54.407 MUSIC IN THE ELEMENTARY SCHOOL – ADVANCED (3) Seminar in teaching techniques and problems of elementary school music; application of theory via work with children. After initial meeting, class meets at off-campus teaching center.
- 54.411 (412) SURVEY OF OPERA (3) Study of opera literature of various periods and styles. Consent of department chairman.
- 54.413 (245) SYMPHONIC LITERATURE (3) Orchestral music from the baroque to the present. The concerto, symphony, overture and other orchestral forms are examined. Prerequisite: Consent of department chairman.
- 54.421 (413) AMERICAN MUSIC (3) American music from the Colonial Period to the present. Prerequisite: Consent of department chairman.
- 54.425 (424) ADVANCED PERCUSSION (3) Study of advanced performance techniques on all percussion instruments. Prerequisite: 54.215, or consent of instructor.
- 54.433 (423) ADVANCED THEORY (3) Continued development of skills in more advanced melodic, harmonic and rhythmic aspects of music through hearing, playing and writing. Prerequisite: Theory.
- 54.435 (425) FORM AND ANALYSIS (3) Analysis of vocal and instrumental literature. Prerequisite: 54.335.
- 54.471-486 (450) PRIVATE LESSONS (1-3) Refer to 54.171-186 for course description, fee and time.

### *Graduate Division*

- 54.501 CURRENT TRENDS IN MUSIC AND MUSIC EDUCATION (3) A survey of current philosophies and objectives of music in the schools, and the scope and sequence of the music curricula, vocal and instrumental, on the elementary and secondary levels.
- 54.535 (524) ADVANCED CHORAL AND INSTRUMENTAL ARRANGING (3) Advanced arranging techniques including the scoring of original and other works for various combinations of instruments and/or voices. Prerequisite: 54.335, or equivalent, or consent of instructor.
- 54.539 MUSIC COMPOSITION (3) Analysis and discussion of works of major composers. Writing of original compositions in vocal and instrumental idioms. Prerequisite: 54.201-202, 54.331-332, 54.335-435.
- 54.562 SEMINAR IN CHORAL (VOCAL) MUSIC (3) Comparative analysis of current methods and materials used in schools and colleges. Choral conducting and repertoire. Style, interpretation, tone quality, diction, rehearsal and conducting techniques are analyzed.
- 54.571-586 (550) PRIVATE LESSONS (1-3) Refer to 54.171-186 for course description, fee and time.

- 54.595 (550) RESEARCH METHODS IN MUSIC AND MUSIC EDUCATION (3) The application of methods of research to problems in the field of music and music education, the preparation of bibliographies and specialized techniques for the location, collection and treatment of data. The written exposition of research projects in the area of the student's major interest.
- 54.699 (590) MASTER'S THESIS IN MUSIC

## EDUCATION MUSIC

### *Upper Division — Undergraduate and Graduate*

- 54.407 MUSIC IN THE ELEMENTARY SCHOOL — ADVANCED (3) Seminar in teaching techniques and problems of elementary school music; application of theory via work with children. After initial meeting, class meets at off-campus teaching center.
- 54.408 (400) ORGANIZATION AND ADMINISTRATION OF MUSIC EDUCATION (3) Seminar discussion of the problems of organization and administration of music education. Prerequisite: Music Student Teaching, and/or consent of instructor.
- 54.491 (480) INSTRUMENTAL WORKSHOP (2) Reading of new band publications. To give the band director an opportunity to hear new publications for band, and to serve as a conducting laboratory for students and directors. Prerequisite: Consent of instructor.

## PHILOSOPHY AND RELIGION

### PHILOSOPHY AND RELIGION COURSES (PHIL)

### *Upper Division — Undergraduate and Graduate*

- 58.321 (321) PRE-SOCRATIC AND CLASSICAL GREEK PHILOSOPHY (3)
- 58.322 (322) LATE CLASSICAL AND MEDIEVAL PHILOSOPHY (3) Prerequisite: 58.101 or 58.321.
- 58.323 (323) RENAISSANCE TO 17TH CENTURY PHILOSOPHY (3) Prerequisite: 58.101 or 58.321.
- 58.324 (324) 18TH AND 19TH CENTURY PHILOSOPHY (3) Prerequisite: 58.101 or 58.321.
- 58.325 (325) SCHOOLS OF CONTEMPORARY PHILOSOPHY (3) A survey with varying emphases on a number of such contemporary philosophical positions as pragmatism, phenomenology, logical positivism, the analysts, neo-Aristotelianism, the philosophers of science, and the existentialists. Prerequisite: 58.101 or 58.321.
- 58.401 (401) THEORY OF KNOWLEDGE (3) An historical and systematic approach to the truth value and elements of the forms of human knowledge. The theories of major philosophers will be studied.
- 58.403 (403) ETHICS (3) Analysis of reading from the principle classical and contemporary ethical sources; study of the basic moral concepts as found in these sources; application to contemporary moral concerns.
- 58.405 (405) AESTHETICS (3) An analytic and historical examination of concepts of the nature of art, beauty, aesthetic value, aesthetic perception, and of the modes of existence of artifacts.
- 58.409 (409) PHILOSOPHICAL SYSTEMS (3) The study of a major philosophical system or position, classical or modern, and of its important proponents. Prerequisite: 58.203, one other lower level course in philosophy, and consent of the department.

- 58.411 (411) PHILOSOPHICAL PROBLEMS (3) A consideration of one of the perennial interests of philosophy. Prerequisite: 58.203, one other lower level course in philosophy, and consent of the department.
- 58.451 (451) PHILOSOPHY OF RELIGION (3) Exposition of various approaches to the philosophy of religion with an analysis of the major issues on which they differ and agree.
- 58.453 (453) PHILOSOPHY OF THE BIBLICAL LIBERATION: THE OLD TESTAMENT (3) Major themes of the Biblical Literature, and its religious, philosophical and cultural implications.
- 58.454 (454) NEW TESTAMENT LITERATURE (3) Major themes of the Biblical Literature, and of its religious, philosophical and cultural implications.
- 58.455 (455) HELLENISTIC ERA (3) Three significant phases of the preparation of the Mediterranean world for the Hebraic-Hellenic synthesis: (1) Judaism, (2) Hellenism, and (3) the Roman conquest. Contribution of archeology will be indicated.
- 58.457 (457) COMPARATIVE RELIGIONS (3) Religions of primitive, and civilized people, including an historical and comparative study of the great religions of the world, both ancient and modern.
- 58.459 (459) RELIGION IN AMERICA (3) Ideas and forms of organization of Protestantism, Catholicism, and Judaism in the United States.
- 58.461 HISTORICAL GEOGRAPHY AND ARCHAEOLOGY OF PALESTINE (3) An assessment of the role of geographical, archaeological and historical disciplines, used conjointly, in Biblical interpretation. Prerequisite: Any of the following — 58.321, 58.322, 58.323, 58.324, 58.325 or HIST 40.101, 40.102, 40.263 or consent of department.
- 58.495 (495) RESEARCH TUTORIAL IN PHILOSOPHY (3) Directed readings and research leading to a thesis paper under one or more members of the department. Open only to philosophy majors or students with demonstrated competency.

## PHYSICAL EDUCATION

### PHYSICAL EDUCATION COURSES (PHED)

\* Prefix for co-education is 60; prefix for men is 61; prefix for women is 62.

#### *Upper Division — Undergraduate and Graduate*

- 412 THEORY AND ANALYSIS OF GYMNASTICS MOVEMENT (3) Theoretical and practical application of mechanical analysis of movement concepts as related to proper execution of skills in gymnastics: The techniques and methods used in this course are designed to provide the teacher a logical system for presenting gymnastic skills to facilitate learning for the student; to demonstrate that gymnastic skills are logically founded on basic physics or terrestrial mechanics; to present aiding and spotting techniques.
- 419 SWIMMING AND POOL MANAGEMENT (2) An advanced course in teaching methods for all levels of swimming and diving. Modern methods of training the competitive swimmer with emphasis on technique and conditioning of the individual. The organization and administration of swimming pools and clubs with regard to staff, recreation and pool filtration. Prerequisite: Senior lifesaving and Water Safety Instructors. This is a certifiable course for pool management, approved by the Department of Health, Baltimore County.
- 421 PHYSICAL EDUCATION PROGRAM IN THE ELEMENTARY SCHOOLS (3) Aims of the physical education program, appropriate outcomes of different age levels and the selection and use of materials that contribute to the accomplishment of these objectives. Prerequisite: 101-159, 201, 202 or 161-197.

- 423 ADAPTIVE PHYSICAL EDUCATION (3) Recognition of pupils with physical deviations, and use of special or modified physical education activities. Prerequisite: 311.
- 425 MODERN DANCE IN THE SECONDARY SCHOOL (3) Dance techniques and elements of composition for the secondary school teacher. Not open to those who have taken Modern Dance Composition. Prerequisite: Consent of instructor.
- 461-462 CHOREOGRAPHY (3,3) Choreographic studies on the advanced level using sonata, rondo, and fugue forms. Elements of performance. Choreography, staging, costumes, and presentation of a group dance. Prerequisite: 320.

### Graduate Division

- 512 SIGNIFICANT PERIODS IN PHYSICAL EDUCATION (3) An examination of the influence of Greek, Roman, European, and English concepts of physical education. Emphasis on the formation and development of American concepts of physical education. Prerequisite: Undergraduate degree with a major in Health and Physical Education or consent of instructor.
- 533 ADMINISTRATION AND SUPERVISION OF PHYSICAL EDUCATION (3) Designed to acquaint the student with the scope, problems and techniques of administering and supervising a program of physical education. The work of the chairman of the department, problems of personnel, program, facilities, and evaluation will be discussed. Prerequisite: Undergraduate degree in Physical Education and consent of instructor.

## PHYSICAL SCIENCES

### CHEMISTRY COURSES (CHEM)

#### Upper Division — Undergraduate and Graduate

- 22.341-342 PHYSICAL CHEMISTRY (4,4) Solid, liquid and gaseous state principles treated with more rigor than possible in elementary courses. Mathematical analysis of chemical systems. Three lecture hours and one three-hour laboratory period. Prerequisite: 22.211, MATH 50.272 or concurrently, PHYS 66.222 or 66.212.
- 22.351-352 BIO-CHEMISTRY (4,4) Structure and properties of the constituents of living matter, including proteins, carbohydrates, lipids, nucleic acids, enzymes and vitamins. Chemical reactions, properties and the mechanisms involved in their synthesis and metabolism associated with biological processes. Three lecture hours and one three-hour laboratory period. Prerequisite: 22.231.
- 22.381 MODERN CONCEPTS OF CHEMISTRY (4) Principles of modern chemistry including some inorganic, organic, analytical, and physical chemistry in an integrated treatment. Primarily for secondary school science teacher. Three lecture hours and one three-hour laboratory period. Prerequisite: 22.102 or 22.104 and two other science courses.
- 22.382 STATISTICAL TREATMENT OF CHEMICAL DATA (3) Designed to develop skill in chemistry students and those in related fields in the application of simple statistical procedures and tables to laboratory data. One two-hour lecture and one three-hour laboratory period. Prerequisite: High school algebra; an aptitude for logic and arithmetic is desirable. A course in quantitative analysis is recommended.
- 22.412 INSTRUMENTAL ANALYTICAL CHEMISTRY (4) Instruments introduced in 22.212 are reconsidered with the application of Physical Chemistry 22.341. Interpretation of typical data generated by the use of NMR, ESR, MS, and x-rays, and other recent developments in instrumental methods of analysis. Two one-hour lectures and two three-hour laboratory periods. Prerequisite: 22.212, 22.341. PHYS 66.311 is recommended.

## 72 / Towson State College

- 22.422 INORGANIC CHEMISTRY (4) Nuclear and extranuclear structure, molecular orbital and ligand field theories, aqueous and non-aqueous reactions, coordination chemistry, inorganic synthesis, modern instrumentation, etc. Three lecture hours and one three-hour laboratory period. Prerequisite: 22.342 or concurrently.
- 22.431 ADVANCED ORGANIC CHEMISTRY LABORATORY (2) Methods of organic synthesis. Emphasis on general types of organic reactions, relying, in part, on original literature sources. Includes considerable individual instruction in laboratory techniques and in the use of equipment and instruments. Two three-hour laboratory periods. Prerequisite: 22.232.
- 22.432 ADVANCED ORGANIC CHEMISTRY (3) Review of fundamentals. Advanced treatment of selected topics in organic chemistry. Typical subject matter areas: (1) reaction mechanisms; (2) structure elucidation; (3) stereochemistry; (4) linear free energy relationships; (5) molecular orbital calculations. Three lecture hours. Prerequisite: 22.232, 22.342 or concurrently.
- 22.491 INTRODUCTION TO RESEARCH IN CHEMISTRY (1-3) An individual laboratory and/or library investigation in research interest of an instructor. May be repeated for credit as 22.492, 22.493, 22.494, etc. At the completion of a project, the student is required to give a public seminar on the work done and the principles involved. The vote of the chemistry faculty present in the seminar will be considered by the research supervisor in assigning final grades. Prerequisite: Consent of instructor.

## PHYSICAL SCIENCE COURSES (PHSC)

### *Upper Division — Undergraduate and Graduate*

- 64.303 EARTH-SPACE SCIENCE IN CHILDHOOD EDUCATION (3) Physical Sciences principles applied in the study of Earth and Space. Emphasis on the individualized experimental and discovery approach. Prerequisite: 64.101.
- 64.401 ADVANCED LABORATORY IN PHYSICAL SCIENCE (2) Exacting Laboratory work of an advanced nature under the guidance of the Physical Sciences Department staff. Each student will present and defend his work at a seminar. Prerequisite: Consent of instructor.
- 64.405 FUNDAMENTAL CONCEPTS IN THE EARTH SCIENCES (3) Principles of astronomy, geology and related earth sciences. Methods of investigation employed by earth scientists. Observations in the planetarium and field studies in the Baltimore area. Two lecture hours and one two-hour laboratory period. Prerequisite: 64.101 or equivalent. No credit allowed if student has taken 64.211 and/or 64.121.
- 64.495 COURSE RESEARCH IN 400-LEVEL COURSES

## PHYSICS COURSES (PHYS)

### *Upper Division — Undergraduate and Graduate*

- 66.301 MECHANICS (3) Systems of coordinates and kinematic components of motion; Newtonian dynamics of particles and linear systems, including planetary motion and oscillations in damped and undamped systems; virtual work; generalized coordinates and Lagrange's equations; Hamilton's principle with elementary applications of least action, varying action and the canonical equations. Some nonlinear effects will be introduced. Three lecture hours. Prerequisite: 66.222 or 66.212 and MATH 50.272.
- 66.302 THERMODYNAMICS AND KINETIC THEORY (3) Principles and laws of classical thermodynamics applied to simpler irreversible processes, including chemical, elastic, electric and magnetic phenomena; thermodynamic functions and Maxwell's relations; the conservation equations in elementary kinetic theory; fluctuations and irreversible transfer effects. This course may be taken concurrently with 66.212 or 66.222 by permission. Three lecture hours. Prerequisite: 66.212 or 66.222.

- 66.305 ELECTRICITY AND MAGNETISM (3) The first semester covers the integral theorems of Gauss and Stokes as applied to electrostatics and magnetostatics; diamagnetism and paramagnetism; steady and transient current effects; alternating currents; conduction in gases, photoelectricity; and electron theories of solid state phenomena. Three lecture hours. Prerequisite: 66.212 or 66.222 and MATH 50.272.
- 66.306 ELECTRICITY AND MAGNETISM (3) The classic treatment of Maxwell-Lorentz electromagnetic and propagation effects; the special theory of relativity; introduction to microwaves and wave guides; plasma physics and magnetohydrodynamics. Three lecture hours. Prerequisite: 66.305.
- 66.311 MODERN PHYSICS (3) The specific details of this course will be changed from time to time as necessitated by student interests and needs. In general, the intermediate principles and applications of relativity, quantum physics, elementary particles, nuclear physics and solid state theory will serve as the foundation for additional specialized developments of current interest. Three lecture hours. Prerequisite: 66.222 or 66.212 and MATH 50.272.
- 66.313 HISTORY AND PHILOSOPHY OF PHYSICS (2) The works of Sarton, Cohen, Singer and Dampier on the history and significance of physical concepts. The philosophical concepts of Bridgman, Russell, Heisenberg and other contemporaries interpreted in the historical development. Two lecture hours.
- 66.321 INTRODUCTORY MATHEMATICAL PHYSICS (3) As the mathematical maturity of the students will allow, selected topics will be examined such as the generalized expressions for forces and potentials, vector analysis, applications of Fourier series and complex variables, and solutions of the harmonic oscillator and wave equations. Three lecture hours. Prerequisite: 66.222 or 66.212, MATH 50.371 or concurrently.
- 66.335 BASIC ELECTRONICS (4) Circuit components, characteristics of semiconductors, electrical measurements, method of circuit analysis, electronic devices. Two lecture hours and two three-hour laboratory periods. Prerequisite: 66.212 or 66.222 or consent of instructor.
- 66.385-387 ADVANCED PHYSICS LABORATORY (3,3,3) The three, single-semester courses may be taken independently subject to the requirements as specified for each. Three laboratory hours and three hours of independent work.
- 66.385 MECHANICS AND HEAT (3) Equilibrium of rigid bodies; moments of inertia; laws of angular motion; physical and torsional pendulums; servomechanisms; surface tension; vapor pressure and hygrometry; viscosity of fluids; continuous flow calorimetry; thermal conductivity; black-body radiation; acoustics. Prerequisite: 66.301 or concurrently.
- 66.386 MODERN PHYSICS (3) Millikan oil drop experiment,  $e/m$  measurement, photoelectric effect, electron diffraction, Franck-Hertz experiment, radioactivity, lasers, soft x-ray and additional specialized developments of current interests. Prerequisite: 66.311 or concurrently.
- 66.387 ELECTRICITY AND OPTICS (3) Kirchoff's laws; potential differences; galvanometer measurements; resistance thermometers, fuel cells; thermoelectricity; indices of refraction — of lenses, Interference effects; spectroscopy. Prerequisite: 66.305 or concurrently.
- 66.395 COURSE RESEARCH IN 300-LEVEL COURSES
- 66.401-402 PHYSICS SEMINAR (1, 1) Students participate in colloquia on topics of current interests in physics research under guidance of instructor. One lecture hour. Prerequisite: Consent of instructor.
- 66.411 PHYSICAL OPTICS (3) Electromagnetic theory of light, wave solutions, interference, diffraction, scattering, radiation from coherent and incoherent sources, elementary theory of masers and lasers. Three lecture hours. Prerequisite: 66.306 or consent of instructor.
- 66.435 ELECTRONICS (3) Principles of transistors with emphasis on their design and construction and an introduction to logic circuits. Two lecture hours and one two-hour laboratory. Prerequisite: 66.306, 66.335.

- 66.471 PHYSICAL STATISTICS AND INTRODUCTORY QUANTUM MECHANICS (3) Distribution functions, the Fermi-Dirac and Einstein-Bose statistics, fluctuations, photonparticle interactions, the need for a quantum theory, the Schroedinger equation, the Pauli theory of electron spin, electronic structure of matter. Three lecture hours. Prerequisite: 66.301, 66.302, 66.306, 66.311, MATH 50.372 or 66.321.
- 66.472 PHYSICAL STATISTICS AND INTRODUCTORY QUANTUM MECHANICS (3) Solution of Schroedinger's equation, the potential barrier problem, the harmonic and non-harmonic oscillator, perturbation theory, uncertainty and complementarity, the probabilistic interpretation, nuclear transformations, conservation laws, symmetry and parity, Dirac's theory of the electron. Three lecture hours. Prerequisite: 66.471.

## SCIENCE EDUCATION COURSES (SCIE)

- 76.488 (26.488) AEROSPACE EDUCATION WORKSHOP (3) In cooperation with CAP, USAF, NASA and others. A fund of general knowledge about aviation and space exploration, their impacts, and the development of resources for uses in teaching. Field trips, two of which may extend all day. Air and ground transportation by the college and cooperating agencies. For elementary and secondary school teachers, supervisors, administrators and students in these fields.
- 76.585 SEMINAR IN ELEMENTARY SCHOOL SCIENCE (3) Seminar approach to current practices and trends in organizing, teaching and improving programs in elementary school science. A seminar paper based on action research is required. Prerequisite: At least 3 basic science courses and elementary school teaching experience.

# PSYCHOLOGY

## PSYCHOLOGY COURSES (PSYC)

### *Upper Division — Undergraduate and Graduate*

- 70.305 (308) PSYCHOLOGY OF LEARNING (3) Analysis of selected problems in both human and animal learning including reinforcement, punishment, verbal learning and verbal behavior. Prerequisite: 70.261.
- 70.306 (309) ADVANCED LEARNING (3) Reading, lectures and discussions from contemporary learning theory and research. Prerequisite: 70.305.
- 70.315 (303) MOTIVATION (3) Theories of motivation, motivational antecedents, and the consequences of such antecedents on instrumental behavior, learning and perception. Prerequisite: Six hours of psychology courses.
- 70.321 (407) ADOLESCENT PSYCHOLOGY (3) Physical, emotional, intellectual development during adolescence; social development and heterosexuality; adolescent personality; problems of adjustment; juvenile delinquency. Prerequisite: 70.211.
- 70.330 (304) PSYCHOLOGY OF INDIVIDUAL DIFFERENCES (3) Individual differences in human traits and characteristics; methodology, basic principles, and major findings in research. Prerequisite: 70.101 and 70.111.
- 70.350 (305) PERSONALITY (3) Theoretical and practical approaches to the study of personality. Introduction to psychodynamics and to methods and materials of assessment. Prerequisite: Six hours of psychology courses.
- 70.361 (306) ABNORMAL PSYCHOLOGY (3) Disordered personal reactions to life. Organic and functional phenomena plus therapeutic techniques. Prerequisite: Nine hours of psychology courses.

- 70.370 (331) FOUNDATIONS OF REHABILITATION COUNSELING (3) The development of rehabilitation programs; their legal basis and historical background. The role of medical, psychological, educational and community resources in the rehabilitation program are explored. Client eligibility, determination, and counselor responsibilities will be reviewed. Spring. Prerequisite: 70.101.
- 70.381 (391) READINGS IN PSYCHOLOGY (1-2) (Honors) A survey of relevant research literature under the guidance of a staff member who will direct the students' research. Prerequisite: 70.261 or consent of instructor.
- 70.385 (385) SEMINAR IN PSYCHOLOGY (1-3) (Honors) Survey and critical evaluation of modern literature pertaining to selected problems in Psychology. Prerequisite: 70.261 or consent of instructor.
- 70.411 (410) TESTS AND MEASUREMENTS (3) Psychological and educational testing and evaluation. The construction, administration, interpretation and use of the various evaluative devices of aptitude and achievement. Prerequisite: 70.101 and 70.111.
- 70.416 (411) PERSONALITY MEASUREMENT (3) A continuation of 70.411 that will emphasize the use and interpretation of instruments for measuring attitudes, interests and related aspects of personality. Instruments studied will include paper-pencil inventories, projective devices and observational procedures. Prerequisite: 70.411 and 70.230.
- 70.420 (415) INDIVIDUAL INTELLIGENCE TESTING (3) Construction, standardization, administration and scoring of Stanford-Binet and the Wechsler Individual Intelligence Tests. Prerequisite: Twelve hours of psychology course hours including 70.411.
- 70.425 (423) INTRODUCTION TO AND ANALYSIS OF INTERPERSONAL RELATIONSHIPS (3) Current concepts of the helping relationship and an exploration of the conditions that facilitate its effectiveness. Prerequisite: 70.101.
- 70.430 (426) SYSTEMS AND TECHNIQUES OF COUNSELING PRACTICE (3) Review and application of current theoretical approaches to the helping relationship. Prerequisite: 70.425 and 70.411.
- 70.431 GROUP DYNAMICS (3) Intensive study of group interactions with emphasis upon reciprocal group influence of behavior. Prerequisite: 70.221 or consent of instructor.
- 70.435 (427) SUPERVISED FIELD EXPERIENCE (3-6) Placement in a community service agency to familiarize the student with its current practices. Supervised client contact will be provided. Prerequisite: 70.370, 70.430 and consent of department.
- 70.441 INFORMATION SERVICE IN COUNSELING AND GUIDANCE (3) Educational and vocational resources. Evaluation, classification and use of such information. Prerequisite: 70.101.
- 70.460 (409) COMPARATIVE PSYCHOLOGY (3) The differences in behavior between species will be compared within a framework of learning, ethology, and neuropsychology. Prerequisite: 70.261.
- 70.465 (412) PHYSIOLOGICAL PSYCHOLOGY (4) The physiological basis of behavior, with consideration of receptor, central and effector structures and function. Three hours lecture, 2 hours laboratory per week. Prerequisite: 70.261.
- 70.471 (460) INTRODUCTION TO THE EXCEPTIONAL CHILD (3) Children with a typical, physical, mental, social and emotional development, including the physically handicapped, the mentally retarded, the gifted, and emotionally disturbed children. Prerequisite: 70.201 or 70.211.
- 70.480 (488) SYSTEMS OF PSYCHOLOGY (3) Schools of psychology with their theoretical and methodological approaches. Prerequisite: Consent of instructor.
- 70.485 (486) EXPERIMENTAL DESIGN (4) (Honors) Design and analysis—Analysis of variance (completely randomized design, repeated measurement designs, etc.), multiple comparisons, nonparametrics, general problems related to sampling, experimental effects, etc. Prerequisite: 70.111 and consent of instructor.
- 70.491 (490) INDEPENDENT INVESTIGATION IN PSYCHOLOGY (3) An opportunity for especially qualified students to undertake research problems according to their interest and training under the direction of a staff member. Prerequisite: 70.261 and consent of department.

*Graduate Division*

- 70.511 (501) DEVELOPMENTAL PSYCHOLOGY (3) Psychological structures and functions in human development. Theoretical and research approaches. Prerequisite: 70.201 or equivalent.
- 70.521 (505) ADVANCED EDUCATIONAL PSYCHOLOGY (3) Survey of current research in Child Psychology, Learning, Mental Hygiene, and Tests & Measurements. Emphasis on critical analysis of studies. Prerequisite: 70.511.
- 70.531 (506) ADVANCED ABNORMAL PSYCHOLOGY (3) Current and historical perspectives of psychopathology. Emphasis on varied approaches in contemporary schools. Methods of assessment and treatment. Prerequisite: 70.560 or equivalent.
- 70.540 (553) MENTAL HYGIENE IN EDUCATION (3) Principles of mental hygiene and their application to the educational setting. Major emphasis on wholesome personality development. Prerequisite: 70.511.
- 70.550 (557) DIAGNOSTIC TECHNIQUES IN EDUCATION (3) Use of standardized and teacher-constructed instruments for diagnostic and instructional purposes. Prerequisite: 70.511, 70.411 or equivalent.
- 70.560 (513) PSYCHODYNAMICS OF BEHAVIOR (3) Description of the manifestation and consequences of the interaction of the emotional needs and the behavioral syndromes. Prerequisite: 70.350 and 70.361 or 70.230.
- 70.563 SYSTEMS OF PSYCHOTHERAPY (3) Course is designed to acquaint students with the more prominent schools of psychotherapy. Particular emphasis is placed on the psychotherapeutic aspect of educational and clinical settings. Prerequisite: 70.350, 70.361 or 70.230, 70.531.
- 70.570 (519) REFERRAL RESOURCES FOR THE SCHOOL AGE CHILD (3) A study of referral services for the enhancement of the emotional, vocational and the behavioral adaptation of children in need of services beyond the classroom situation. The course attempts to give direct knowledge to the student of all such specialized facilities both school and community sponsored. Prerequisite: 70.511.
- 70.573-574 ADVANCED EXPERIMENTAL PSYCHOLOGY (3,3) The first semester is comprised of experimentation in the field of human behavior, and the second will emphasize experimentation in the field of animal behavior. Prerequisite: Consent of department.
- 70.577 LEARNING (3) A thorough coverage of major learning theories and models. Prerequisite: Consent of department.
- 70.579-580 SEMINAR (1,1) Selected readings of the current literature will be investigated by the students and faculty. Prerequisite: Consent of department.
- 70.584 COLLEGE TEACHING SEMINAR (3) Materials and procedures for producing successful students in lower level courses will be explored. Prerequisite: Consent of department.
- 70.587-588 EXPERIMENTAL DESIGN (3,3) In the first semester, emphasis will be placed on the techniques of analysis of variance and non-parametric statistics. The second semester is comprised of a detailed survey of correlational and factor analytic techniques. Prerequisite: Consent of department.
- 70.590 HISTORY AND SYSTEMS OF PSYCHOLOGY (3) Ancient and modern psychological history; discussion of ancient history will draw heavily from both philosophy and physiology; discussion of modern history will develop psychology in various countries. The analysis of systems will include a study of functionalism, structuralism, behaviorism, gestalt and psychoanalysis. Prerequisite: Consent of department.
- 70.591 (515) PROJECTIVE TECHNIQUES I (3) This is the first of a two course sequence dealing with projective techniques. The first semester emphasizes an introduction to the administration and scoring of projectives in current clinical use. Credit will be awarded only upon completion of the first and second semester of this sequence. Prerequisite: Consent of the instructor.

- 70.592 (516) PROJECTIVE TECHNIQUES II (3) The second of a two semester sequence in projective techniques. This course emphasizes the interpretation of projective data and diagnostic implications. Particular emphasis will be placed on the evaluation of learning problems. Prerequisite: 70.591 and consent of instructor.
- 70.605 (511) PRINCIPLES OF GUIDANCE (3) Aims at establishing a philosophy and gaining a knowledge of the principles of guidance. Includes an introduction to the literature of the field. Prerequisite: 70.511 or equivalent.
- 70.607 (520) OCCUPATIONAL INFORMATION (3) Provides students with knowledge of educational and vocational opportunities and community referral sources essential to a sound guidance program. Includes evaluation, classification and use of such information in the instructional program. Group guidance, counseling and placement. Prerequisite: 70.605.
- 70.611 (512) ANALYSIS OF THE INDIVIDUAL (3) Techniques available in studying the individual. Emphasizes data in the area of vocational, educational and personal adjustment. Prerequisite: 70.605 and 70.411. (70.605 may be taken concurrently.)
- 70.615 (510) TECHNIQUES OF COUNSELING (3) Counseling and therapy techniques used by counselors and other professional personnel working with children and adults. Prerequisite: 70.430 or equivalent.
- 70.621 (514) GROUP TECHNIQUES IN GUIDANCE AND COUNSELING (3) The selection, organization and effective use of group guidance materials and techniques in providing for the common needs of groups of students in making more effective educational, occupational, social and personal adjustment. Prerequisite: 70.430 and 70.441.
- 70.627 (527) USE OF TESTS IN COUNSELING (3) Practice in the use and analysis of techniques for understanding the individual with emphasis upon standardized procedures used in the public schools. Prerequisite: 70.611.
- 70.630 (517) COUNSELING THE ELEMENTARY SCHOOL CHILD (3) Study of the dynamics of child behavior, techniques of assessing and counseling. Study of the family, school, and community structures and their effect on the child. Prerequisite: 70.430.
- 70.635 (530) COMMUNICATION MEDIA WITH CHILDREN I (3) Introduction to the methods and materials used in diagnostic and therapeutic approaches to children. Use of toys, art media and play activities emphasized. Prerequisite: 70.615 or equivalent.
- 70.636 (531) COMMUNICATION MEDIA WITH CHILDREN II (3) A continuation of 70.635 with emphasis upon practical application of the theoretical principles involved in the psychodiagnostic and therapeutic use of play media. Use of the playroom and its materials will be emphasized. Prerequisite: 70.645 and 70.635.
- 70.645 (523) COUNSELING PRACTICUM I (3) Supervised experience in educational, vocational and personal counseling. Prerequisite: 70.615 and consent of department. Credit will be granted for this course upon completion of 70.635, 70.636, 70.646 or 70.635-636.
- 70.646 (525) COUNSELING PRACTICUM II (3) Field experience in educational, vocation and personal counseling. Prerequisite: 70.645 and consent of department. Students registering for this course will be required to have one half day (1 p.m. to 5 p.m.) free for Practicum assignments.
- 70.651 (521) CLINICAL PRACTICUM IN SCHOOL PSYCHOLOGY I (3) Provides an opportunity to participate in diagnostic, remedial and therapeutic planning as well as follow-up studies under supervision of practicing clinical psychologists. Prerequisite: Consent of instructor.
- 70.652 (522) CLINICAL PRACTICUM IN SCHOOL PSYCHOLOGY II (3) Off campus placements will be arranged for each student. Supervision from a practicing clinical psychologist will be conducted on a group as well as individual basis. Prerequisite: 70.651.
- 70.656 (595) SEMINAR IN COUNSELING—ELEMENTARY (3) Analysis of research trends; examination of critical issues, reports of student research projects, professional problems and ethics. Prerequisite: 70.645.

- 70.660 (596) SEMINAR IN COUNSELING – SECONDARY (3) Analysis of research trends; examination of critical issues, reports of student research projects, professional problems and ethics. Prerequisite: 70.645.
- 70.690 (591) PRO SEMINAR IN SCHOOL PSYCHOLOGY (3) Consideration of current practices and trends in school psychology. Each student will do a study of interest to him and submit a formal written paper. Prerequisite: Consent of department.
- 70.699 THESIS (3) Optional for students in Master of Arts in School Psychology program.

## SOCIOLOGY

### SOCIOLOGY COURSES (SOCI)

#### *Upper Division — Undergraduate and Graduate*

- 80.303 SOCIAL WELFARE (3) Historical development; philosophy and theory; processes developed and fields of social work; federal, state and community programs. Prerequisite: 80.101.
- 80.342 SOCIAL STRATIFICATION (3) The nature of social stratification; relationship of social mobility to social organization; social class structure in traditional and dynamic societies. Prerequisite: 80.101.
- 80.344 URBAN SOCIOLOGY (3) Historical development and organization of urban communities; rise and dominance of the modern city; relationship between cities and social behavior; problems and adjustment. Prerequisite: 80.101.
- 80.345 SOCIAL ORGANIZATION (3) An analysis of the social structure of human groups; the processes leading to the formation, stability, instability and changes of social organizations. Prerequisite: 80.101.
- 80.346 POLITICAL ANTHROPOLOGY (3) Comparative political institutions and behavior among contemporary non-literate societies. Theoretical problems of social control, state and non-state systems, symbolic aspects of power, levels of political integration, and warfare. Prerequisite: 80.101 or 80.105.
- 80.347 COMMUNITY ORGANIZATION (3) The organization of the community as a vehicle for identifying and meeting human needs; processes and techniques of community planning and development, traditional and contemporary. Prerequisite: 80.101.
- 80.363 INDIVIDUAL AND SOCIETY (3) A social psychological approach to the interrelationships of the individual and his social and cultural environment; behavioral characteristics resulting from social experience. Prerequisite: 80.101.
- 80.364 RELIGION, MAGIC AND WITCHCRAFT (3) The world view, beliefs, and rituals of selected non-literate peoples considered with reference to religion as a universal category of human culture. Prerequisite: 80.101 or 80.105.
- 80.365 ETHNOGRAPHY OF NORTH AMERICA (3) A comparative description and interpretation of native American Indian culture. Prerequisite: 80.101 and 80.207.
- 80.381 MINORITY GROUPS (3) An examination of intergroup life as an aspect of society; conflicts between races, ethnic groups, and minorities; prejudice, segregation and integration. Prerequisite: 80.101.
- 80.382 FIELDS AND METHODS OF SOCIAL WORK (3) Introduction to the knowledge base and theory of professional social work; the agency as setting; practical methods and techniques; significance of day to day occurrences in agencies. Prerequisite: 80.303.
- 80.383 CRIMINOLOGY (3) The nature of crime; factors underlying criminal behavior; police, courts, law, and correctional institutions. Prerequisite: 80.101.

- 80.386 JUVENILE DELINQUENCY (3) A study of delinquency; the process of socialization and delinquent behavior in society; prevention and treatment of delinquency. Prerequisite: 80.101.
- 80.392 POPULATION AND ECOLOGY (3) Social, economic and political problems related to changes, distribution and movement of population; analysis of contemporary population trends in the U.S. and the world. Prerequisite: 80.101.
- 80.402 SOCIAL MOVEMENTS (3) General, specific and expressive movements; the forces producing change; the manner in which new social organizations are formed and established. Prerequisite: 80.101.
- 80.403 COLLECTIVE BEHAVIOR (3) Study of historical and contemporary major unstructured and semi-structured situations; crowds, mobs, riots. Prerequisite: 80.101.
- 80.406 SOCIOLOGY OF EDUCATION (3) Sociological analysis of education as a basic social institution; formal and informal organizations of education systems; relationship to socialization; major social trends in education; concept of academic freedom. Prerequisite: 80.101.
- 80.407 SOCIOLOGICAL THEORY (3) Major systems of sociological theory; the works, assumptions, and workings of major European and American schools. Prerequisite: 80.101.
- 80.408 ADVANCED SOCIOLOGICAL THEORY (3) Critical analysis of emerging theoretical schools. Attention will be given to contemporary theoretical problems. Prerequisite: 80.101 and 80.407.
- 80.410 SMALL GROUPS (3) Formal and informal action in small groups generally characterized by face-to-face interaction; emphasis on leadership, group dynamics and opinion formation. Prerequisite: 80.101.
- 80.457 SOCIAL DEVIANCE (3) Deviance as an aspect of social living; the problem of understanding conformity and deviance; identification of deviants; society's response to deviant behavior. Prerequisite: 80.101.
- 80.485 SEMINAR IN SOCIOLOGY (3) Exploring and analyzing major areas of sociology. Prerequisite: 80.407 and consent of instructor.
- 80.495 RESEARCH METHODS (3) A consideration of methodology of sociological research; the various steps in conducting research projects, from statement of the problem to final analysis of data. Prerequisite: 80.101 and PSYC 70.111.
- 80.497 SPECIAL RESEARCH PROJECT (2-4) Directed study and research on an individual basis. Prerequisite: 80.101 and consent of instructor.
- 80.499 INDEPENDENT RESEARCH (3) Supervised research and sociological investigation leading to preparation of a research project or a supervised laboratory experience in a social agency. Prerequisite: 80.495 and consent of department chairman.

## SPEECH AND DRAMA

### SPEECH AND DRAMA COURSES (SPCH)

#### GENERAL SPEECH (including Public Address)

#### GENERAL SPEECH COURSES (SPCH)

#### Upper Division — Undergraduate and Graduate

- 84.395 INDEPENDENT STUDY IN ORAL INTERPRETATION (1-6) Independent study in selected areas of oral interpretation through directed readings, projects, papers, or seminars. Open by invitation of the Speech Department to qualified students. Prerequisite: 84.221, invitation of the Speech Department and consent of chosen instructor.

## 80 / Towson State College

- 84.402 SPEECH SCIENCE (3) Lectures, readings, and demonstrations presenting the structure and function of the physiological systems involved in respiration phonation, resonance and articulation. Fundamentals of the physiology of the speech mechanism and the physics of sound transmission. Prerequisite: 84.310.
- 84.403 CLASSICAL AND MODERN RHETORIC (3) Survey of rhetorical theory from Isocrates to contemporary communication theorists. Particular attention is given to Aristotle, Cicero and Quintillian. Designed to develop standards of rhetorical criticism.
- 84.405 AMERICAN PUBLIC ADDRESS (3) History and criticism of two centuries of public address in the United States, the great speakers, their historical environment, their beliefs and effects on American life. Prerequisite: 84.303 or HIST 40.145 or consent of instructor.
- 84.406 BRITISH PUBLIC ADDRESS (3) Public address in Great Britain, the great speakers, their historical environment, their beliefs and effects on American life. Prerequisite: 84.303 or HIST 40.263 or consent of instructor.
- 84.421 EXPERIMENTAL PHONETICS (3) An advanced course in the study of Phonetic Science. Concerned with the application of experimental methods to study and research in voice and phonetics, especially spectrographic analysis. Includes critical review of research literature in Scientific Phonetics. Prerequisite: 84.310 or consent of instructor.
- 84.423 ADVANCED ORAL INTERPRETATION (3) Advanced theory and practice of oral interpretation with emphasis placed upon the relationship of dramatic structure to the interpreter's performance and his audience. Prerequisite: 84.221 or consent of instructor.
- 84.432 THE COACHING AND MANAGEMENT OF FORENSICS (3) Problems of organizing, financing, and directing the forensic program in schools and colleges. Coaching, schedules, and techniques for debate and individual speech events. Competing philosophies of forensics and secondary school and college-level forensic organization are studied.
- 84.493 INDEPENDENT STUDY IN READERS THEATRE (3) Independent study in selected areas of Readers Theatre through directed readings, projects, papers or seminars. Open by invitation of the Speech Department to qualified students.
- 84.495 INDEPENDENT STUDY IN PUBLIC ADDRESS (1-6) Independent study in selected areas of public address through directed readings, projects, papers, or seminars. Open by invitation of the Speech Department to qualified students.

## THEATRE ARTS COURSES (THAR)

### *Upper Division — Undergraduate and Graduate*

- 86.307 (390) THEATRE ARTS FOR CHILDREN (2) Technique and theory of playmaking for children. Participation in story telling, story dramatization and production, improvisation, rhythms, pantomime, and puppetry.
- 86.321 ACTING III (3) Theory and practice of acting. Work in role analysis and character building. Prerequisite: 86.222 or consent of instructor.
- 86.331 (370) PLAY DIRECTING I (3) Fundamentals of play directing through exercises, directorial play analysis and project in directing a contemporary one-act play. Prerequisite: 86.205 and 86.221 or consent of instructor.
- 86.355 (360) STAGE LIGHTING (3) Theory of light and electricity with emphasis on the planning of light plots. Aesthetic effort of stage lighting and problems of lighting small stages with minimum equipment. Prerequisite: 86.251 or consent of instructor.
- 86.361 (380) DESIGN FOR THE STAGE (3) Theory and practice of designing scenery for the stage. Includes a study of the relationship of the set design to the script and other elements of production. examination of research techniques in preparation for scene designing and practice in designing scenery for many styles and types of drama. Prerequisite: 86.251 or consent of instructor.

- 86.371 THEATRE GAMES I (1) Exercises in acting designed to develop the individual's creativity and encourage work on personal acting technique. Prerequisite: 86.221.
- 86.372 THEATRE GAMES II (1) Exercises in acting designed to develop the individual's creativity and encourage work on personal acting technique. Prerequisite: 86.221.
- 86.401 (401) THEATRE AS A PROFESSION (1) Working conditions, unions, employment opportunities in the theatre. Preparation of professional credentials, audition material, etc. Prerequisite: Theatre Arts major or consent of instructor.
- 86.431 (470) DIRECTING THE PERIOD PLAY (3) Research technique and directorial approaches to period drama. Individual directing projects of scenes from representative period dramas. Prerequisite: 86.331 or consent of instructor.
- 86.441 (451) COSTUME DESIGN (3) Study of the theories, principles, of costume design and practice in designing costumes for the stage. Including a study of the relationship of color, texture, and historical period to the script and style of a theatrical production. Also practical use of costume research techniques in preparing designs. Experience in designing costumes for many historical periods and styles of plays.
- 86.487 PROFESSIONAL THEATER SEMINAR (12) A semester's internship in a resident theater company. For majors only. Prerequisite: Approval of director of theater.
- 86.495 (490) PROBLEMS IN THEATER (1-3)
- 86.496 (491) PROBLEMS IN THEATER II (1-3) Independent study of an academic or creative nature. For majors only. Prerequisites: Approval of plan of study by instructor and director of theater.
- 86.497 (492) PROBLEMS IN THEATER III (1, 2 or 3)
- 86.498 (493) PROBLEMS IN THEATER IV (1, 2 or 3)

## MASS COMMUNICATION COURSES (MCOM)

### *Upper Division — Undergraduate and Graduate*

- 53.351 PUBLIC OPINION AND THE PRESS (3) Journalistic aspects of public opinion and propaganda; the impact of mass communication media on the formation of public opinion. Techniques of polling and testing public opinion.
- 53.353 PUBLICITY AND PUBLIC RELATIONS (3) Provides an awareness and understanding of public relations activities. Students learn publicity techniques and how to organize campaigns.
- 53.361 ADVANCED TELEVISION TECHNIQUES (3) Advanced techniques in television production and performance for commercial and educational television. Major emphasis on directing. Prerequisite: 53.261 or consent of instructor.
- 53.367 TELEVISION WRITING (3) Training and practice in writing commercials, documentaries and plays for the specific medium of television — commercial and educational. Prerequisite: ENGL 30.102, 30.204.
- 53.385 MASS MEDIA IN MODERN SOCIETY (3) Includes study of structure and function of mass media plus analysis of content, audiences and effects of the media.
- 53.395 INDEPENDENT STUDY IN FILM AND BROADCASTING (1-6) Independent study in selected areas of film and broadcasting through directed readings, projects, papers, or seminars. Open by invitation of the department to qualified students.
- 53.475 FILM WORKSHOP (3) Designed primarily to provide experienced or future teachers with background about film so that they may better help pupils to become informed and to develop critical reactions to the films they view. Prerequisite: Consent of instructor.

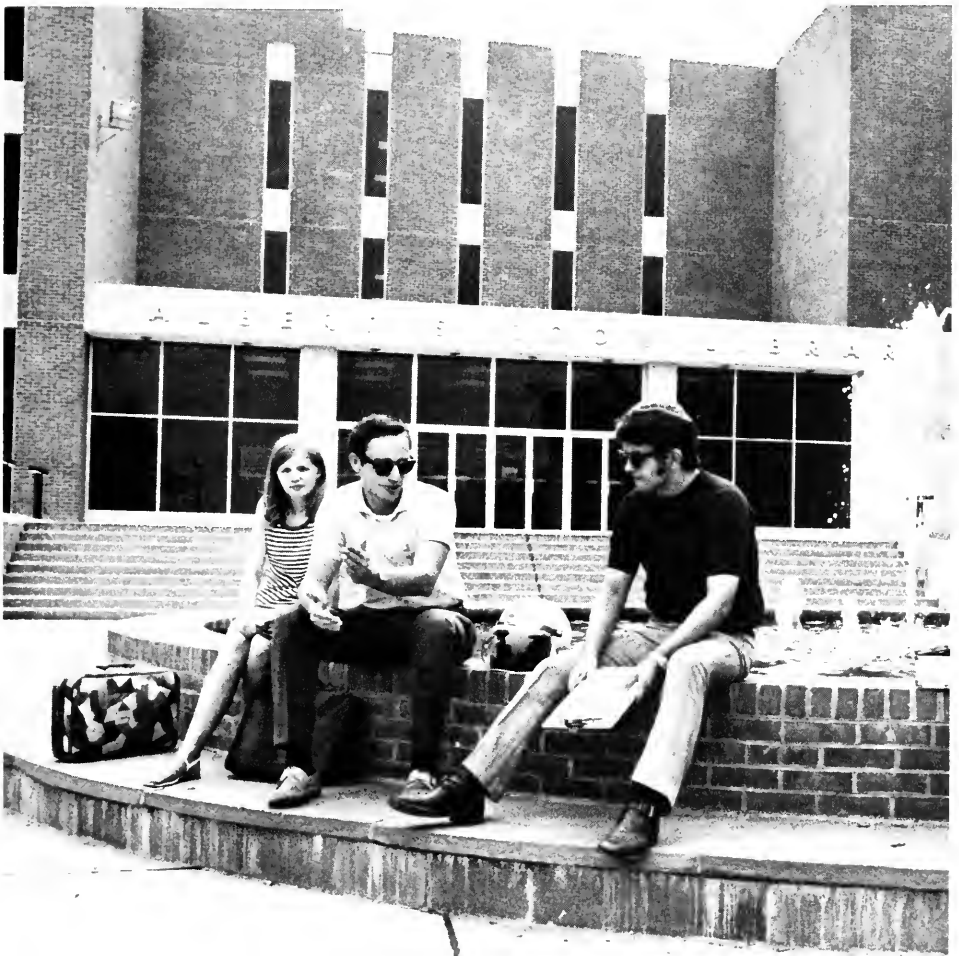
- 53.485 NEWSPAPER WORKSHOP (3) Sponsored by the member newspapers of the Maryland Delaware Press Association and Towson State College. Designed primarily to provide public school teachers with background about the mass media so that they may better help pupils to become informed and develop intelligent opinions on current affairs. Students will be expected to take two afternoon field trips. Prerequisite: Consent of Instructor.

## SPEECH PATHOLOGY AND AUDIOLOGY COURSES (SPPA)

### *Upper Division — Undergraduate and Graduate*

- 87.301 SPEECH PATHOLOGY I (3) Analysis of etiologies and symptoms in functional and organic speech disorders such as voice problems, articulation, cleft palate and esophageal speech. Observation will be required. Prerequisite: 87.105.
- 87.304 METHODS OF SPEECH CORRECTION I (3) Methods of treating speech and language disorders. Offered are clinical techniques, demonstrations, and practice in diagnostic procedures. Therapeutic materials will be studied. Observation and participation will be required. Prerequisite: 87.301.
- 87.305 STUTTERING—ETIOLOGY AND THERAPY (3) Analysis of etiologies, symptoms and therapeutic management of stuttering. Prerequisite: 87.301 or consent of instructor.
- 87.308 SPEECH PATHOLOGY II (3) Analysis of etiologies and symptoms of speech disorders related to neuropathologies such as cerebral palsy, mentally handicapped, and language learning disabilities associated with speech and listening. Observation and participation will be required. Prerequisite: 87.301.
- 87.309 METHODS OF SPEECH CORRECTION II (3) Advanced methods of testing speech and language disorders. Practice in clinical techniques and group therapy will be required. General principles of psychology and their application to speech, hearing and language therapy will be reviewed. Therapeutic materials will be studied. Prerequisite: 87.304 and/or consent of instructor.
- 87.401 CLINICAL AUDIOLOGY (3) This course deals with: audiometric procedures for differential diagnosis of auditory disorders; functional loss; noise; air and bone conduction; masking; and principles of examination and interviewing techniques. Students will be required to observe and participate in audiologic workups. Prerequisite: 87.241 and/or consent of instructor.
- 87.404 PROFESSIONAL PROGRAMS, PROBLEMS AND RELATIONSHIP (3) Organization and administration of speech pathology and audiology programs in various professional settings; personal, professional and community relationships and responsibilities. Observation will be required. Prerequisite: 87.487 or consent of instructor.
- 87.407 SPEECH READING AND AUDITORY REHABILITATION (3) Theories, objectives and techniques for the teaching of speech reading, speech conservation and auditory training. Observations and practice will be required. Prerequisite: 87.241.
- 87.409 SPEECH AND LANGUAGE FOR THE DEAF CHILD (3) Principles and techniques for developing speech and language in the deaf child using whole-word and analytical methods, consideration of multiple handicaps; demonstration and observation will be required. Prerequisite: 87.308, 87.241 and/or consent of instructor.
- 87.411 SEMINAR/WORKSHOP IN SPEECH PATHOLOGY AND AUDIOLOGY—SPEECH AND LANGUAGE DEVELOPMENT FOR THE SPEECH AND LANGUAGE DEPRIVED (6) Diagnostic therapeutic and methods for the management of children who are deprived in the areas of speech and language. Prerequisite: Professional experience and/or consent of instructor.
- 87.421 SEMINAR/WORKSHOP—HEARING IMPAIRED (6) Psychology and science of hearing and anatomy of the hearing mechanism will be reviewed. Investigation of communication, educational, vocational, psychological and social problems of the hearing impaired as these relate to personal adjustment in today's society. The study of the principles and techniques of teaching the hearing impaired. Prerequisite: 87.487 or professional experience or consent of instructor.

- 87.487 **CLINICAL PRACTICE IN SPEECH CORRECTION (2-6)** Clinical observation of and practice in therapeutic procedures with various types of speech, language and/or hearing disorders in the Townson State College Speech and Hearing Clinic. Students may also be assigned a practicum in the Lida Lee Tall School and/or various centers that offer speech, language or hearing therapy, such as hospitals or private agencies. (Credit is for 2 semester hours per semester, except summer.) Prerequisite: 87.308 or consent of instructor.
- 87.488 **CLINICAL PRACTICE IN PUBLIC SCHOOLS (2)** Students are assigned to an approved therapy program for observation and practice teaching. The student will earn a minimum of 100 of the 200 clinical clock hours required for certification. Prerequisite: 87.487.
- 87.489 **CLINICAL COUNSELING IN AUDIOLOGY AND SPEECH PATHOLOGY (3)** Systems of directive and nondirective counseling utilized by speech and hearing clinicians for the management of organic and nonorganic disorders. Techniques of interviewing, case history recording, and the conditioning of semantic reactions through interpersonal interaction. Prerequisite: 87.301 and 87.308.



## ADMINISTRATION

### BOARD OF TRUSTEES

Mathias J. DeVito, <i>Chairman</i>	Baltimore
Elaine C. Davis	Baltimore
J. Carson Dowell	Cumberland
Victor Frenkil	Baltimore
A. Harris Grossman	Chevy Chase
Robert C. Murphy	Towson
H. Gray Reeves	Salisbury
James A. Sensenbaugh	Frederick
Robert B. Watts	Baltimore

### BOARD OF VISITORS

Melvin M. Berger	Baltimore
Robert Y. Dubel	Baltimore
Earle T. Hawkins	Baltimore
Samuel P. Massie	Laurel
M. Jacqueline McCurdy	Lutherville
Richard Neidig	Cheverly
Earl T. Willis	Baltimore

### OFFICERS OF THE COLLEGE

#### Executive Council

James L. Fisher	<i>President</i>
Kenneth A. Shaw	<i>Vice President and Dean of the College</i>
C. Richard Gillespie	<i>Vice President and Dean of Students</i>
Wayne N. Schelle	<i>Vice President and Director of Business and Finance</i>
Paul E. Wisdom	<i>Vice President and Director of Institutional Development</i>

### OFFICERS FOR GRADUATE STUDIES

Wilfred B. Hathaway	<i>Dean of Graduate Studies</i>
Frederick C. Arnold	<i>Associate Director of Graduate Studies</i>

## GRADUATE STUDIES COMMITTEE

Wilfred B. Hathaway	Professor of Biology and Dean of Graduate Studies
Kenneth A. Shaw	Dean of the College
Vincent J. Colimore	Assistant Professor of Education
Compton N. Crook	Associate Professor of Biology
Fredericka Kundig	Associate Professor of Biology
Marion S. Sargent	Professor of English
Mary M. Suydam	Associate Professor of Psychology
Earl T. Willis	Professor of Education

## GRADUATE STUDIES COORDINATORS

Frederick C. Arnold	Associate Director of Graduate Studies
Golden E. Arrington	Coordinator, Music Education Program
Grayson S. Burrier	Coordinator, Secondary Education Program
David Firman	Coordinator, Geography Program
Regina I. Fitzgerald	Coordinator, Elementary Education Program
Joseph P. Gutkoska	Coordinator, Reading Program
Billy D. Hauserman	Coordinator, Urban Teaching Program
Dell C. Kjer	Coordinator, Early Childhood Education Program
Fredricka Kundig	Coordinator, Biology Program
John B. Mitchell	Coordinator, Art Education Program
Edward Neulander	Coordinator, Guidance and Counseling Program and Acting Coordinator, School Psychology Program
Althea Wagman	Coordinator, General Psychology Program

## INSTRUCTIONAL FACULTY 1970-1971

*The date in brackets following the listing of each person  
is the date of first appointment in the college.*

ROBERT W. ABENDROTH, *Associate Professor, Education*  
B.A., Bowdoin College; M.Ed., University of Vermont. [1951]

CLIFFORD D. ALPER, *Associate Professor, Music*  
B.M., M.M., University of Miami. [1960]

HERBERT D. ANDREWS, *Professor, History*  
A.B., Bowdoin College; M.A., Ph.D., Northwestern University. [1959]

GOLDEN E. ARRINGTON, *Associate Professor and Chairman, Department of Music*  
B.M., M.M., University of Idaho; Ph.D., University of Texas. [1968]

CHANDLER BARBOUR, *Associate Professor, Education*  
B.S. Ed., Washington State College; M.Ed., University of Maine; Ed.D., Wayne State University. [1970]

JOHN R. BAREHAM, *Professor, Physical Science*  
B.S., State Teachers College at Towson; M.A., Ed.D., Teachers College, Columbia University. [1956]

ROBERT D. BECKEY, *Associate Professor, Mathematics*  
A.B., Wittenberg University; M.Ed., Miami University. [1959]

GEORGE A. BEISHLAG, *Professor, Geography*  
A.B., Wayne University; M.A., Clark University; Ph.D., University of Maryland. [1954]

ERIC A. BELGRAD, *Associate Professor, Political Science*  
B.A., M.A., Ph.D., Johns Hopkins University. [1966]

SUSIE M. BELLOWES, *Associate Professor, Education*  
A.B., College of Charleston; M.A., George Peabody College for Teachers. [1961]

THOMAS BENTON, *Associate Professor, Education*  
B.A., East Caroline College; Ed.M., University of North Carolina; Ed.D., Duke University. [1969]

L. EDWARD BEVINS, *Professor and Chairman, Department of English*  
A.B., University of Alabama; M.A., Ph.D., University of Virginia. [1952]

JAMES BINKO, *Associate Professor, Education*  
B.S., State Teachers College at Towson; M.A., Ed.D., University of Maryland. [1962]

CORINNE T. BIZE, *Professor, Physical Education*  
B.S., Russell Sage College; M.A., New York University, Ed.D., Teachers College, Columbia University. [1951]

FLOYD A. BLANKENSHIP, *Associate Professor, Chemistry*  
B.S., University of Georgia; Ph.D., University of Chicago. [1966]

- ARNOLD BLUMBERG, *Professor, History*  
B.S., M.S., Ph.D., University of Pennsylvania. [1958]
- JOHN B. BOLES, *Assistant Professor, History*  
B.A., Rice University; Ph.D., University of Virginia. [1969]
- ELLA BRAMBLETT, *Associate Professor, Education*  
B.S., Middle Tennessee State College; M.A., George Peabody College for Teachers. [1951]
- ALIZA BRANDWINE, *Associate Professor, Education*  
B.A., New School of Social Research; M.A., Ed.D., Yeshiva University. [1969]
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# INDEX

- Accreditation, Cover II, 9
- Administration, 84
- Admission, 15
- Advisement, 10
- Art Education Courses, 39
  - Program, 22
- Audiovisual Communications
  - Courses, 41
- Biology Courses, 43, Program, 25
- Book Store, 12
- Buildings, 8
- Calendar, Academic, 4
- Campus, Description of, 8
  - Map of, Cover III
- Car Registration Fee, 12
- Change of Course Fee, 11
- Chemistry Courses, 71
- College Centre, 13
- College Fee, General, 11
- College, History of, 7
- Comprehensive Examination, 19
- Contents, Table of, 3
- Counseling, 13
- Course Descriptions, 39
- Degree Candidacy,
  - Advancement to, 18
- Drama Courses, 80
- Early Childhood Education
  - Courses, 47
  - Program, 28
- Economics Courses, 46
- Education Courses, 47
- Elementary Education Courses, 48
  - Program, 30
- English Courses, 53
- Facilities, 8
- Faculty, 86
- Fees, 11
- Financial Aid, 13
- Financial Information, 11
- French Courses, 64
- Geography Courses, 55
- German Courses, 65
- Graduate Studies Committee, 9, 85
- Graduate Studies Coordinators, 10, 85
- Graduate Studies, Development of, 7
- Graduation Fee, 11
- Guidance and Counseling
  - Program, 27
- Health Center, 13
- Health Education Courses, 57
- History Courses, 58
- Information, General, 7
- Laboratory Fee, 11
- Library, Hours, Privileges, 10
- Master's Degree,
  - Requirements for, 18
- Mathematics Courses, 62
- Messages, 14
- Music Courses, 67
- Music Education Program, 32
- Music Lessons, Private, 11
- Office Hours, Graduate Division, 10
- Parking, 14
- Philosophy Courses, 69
- Physical Education Courses, 70
- Physical Science Courses, 72
- Physics Courses, 72
- Placement Service, 13
- Political Science Courses, 46
- Project Mission Courses, 52
- Psychology Courses, 74
- Qualifying Program, 17
- Reading Program, 34
- Registration, 11
- Registration Fee, 11
- Regulations, Academic, 15
- Religion Courses, 69
- Requirements for
  - Master's Degree, 18
- Residence, On and Off-Campus, 13
- School Psychology Program, 24
- Secondary Education Program, 36
- Seminar Requirements, 19
- Sociology Courses, 78
- Spanish Courses, 66
- Speech Courses, 79
- Student Personnel Program, 12
- Thesis Requirements, 19
- Transcript Fee, 11
- Trustees, Board of, 9, 84
- Tuition, 11
- Urban Teaching Program, 37
- Visitors, Board of, 84

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